

0082090
(Section 2)

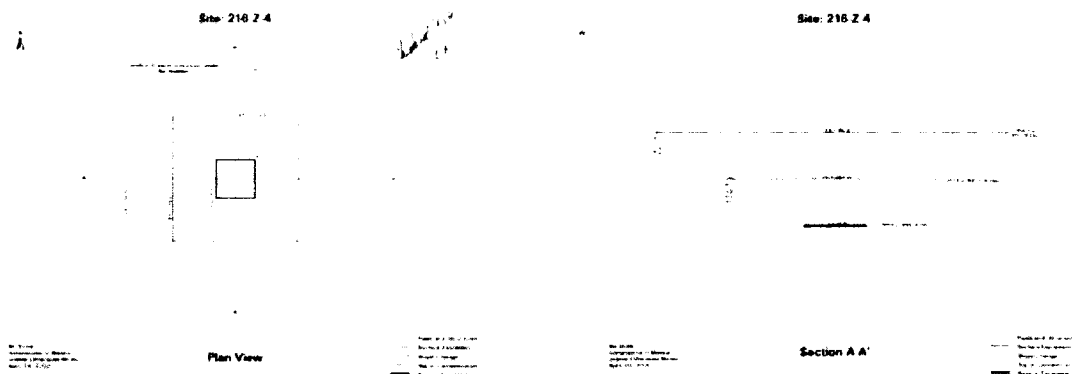
DOE/RL-2008-44 REV 0

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$1,386,000

References:

WIDS General Summary Report, DOE/RL-99-66, DOE/RL-2004-24, DOE/RL-2003-11

216-Z-4

Site Name: 216-Z-4, 231-W-3 Pit, 231-W-3 Sump, 231-W-3 Crib, 216-Z-3, 216-Z-4 Crib

Site Type: Trench

Facility: PFP Area

Current OU: 200-MG-1

Former OU: 200-PW-6

Waste Site Description:

The 216-Z-4 Trench is an inactive waste management unit. The unit was backfilled and deactivated in 1945. The original configuration was a large unlined excavation. The site was used to temporarily receive liquid laboratory waste from the 231-Z building. The trench was constructed in 1945 to temporarily receive liquid laboratory waste from the 231-Z Building. The 216-Z-4 Trench was deactivated and backfilled when it was discovered to be too small for the waste stream. The laboratory effluent was rerouted to the 216-Z-6 Crib. (since the 216-Z-6 crib was fed with an aboveground pipeline, it is likely the 216-Z-4 was also fed with an aboveground pipeline). The site was interim stabilized in February 1990. When the effluent flow exceeded the infiltration capacity, the unit was deactivated by capping the pipeline west of the 231-W-151 Vault. The unit was used from June to July 1945.

Related Site Structure: Structures associated with this trench include the capped pipeline from the 231-Z Building and the 231-W-151 Vault Sump.

Site Posting: Not Specified

Release Mechanism: Contaminated Effluent

Release Type: Liquid

Dimensions (estimated):

Site Length:	3.0 m (10.0 ft)	Site Depth:	4.6 m (15.0 ft)
Site Width:	3.0 m (10.0 ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	9.1 m ² (100.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Am-241, Cs-137, Co-60, Sr-90, H3
Nonradiological	X	PCB Aroclor-1254, Se

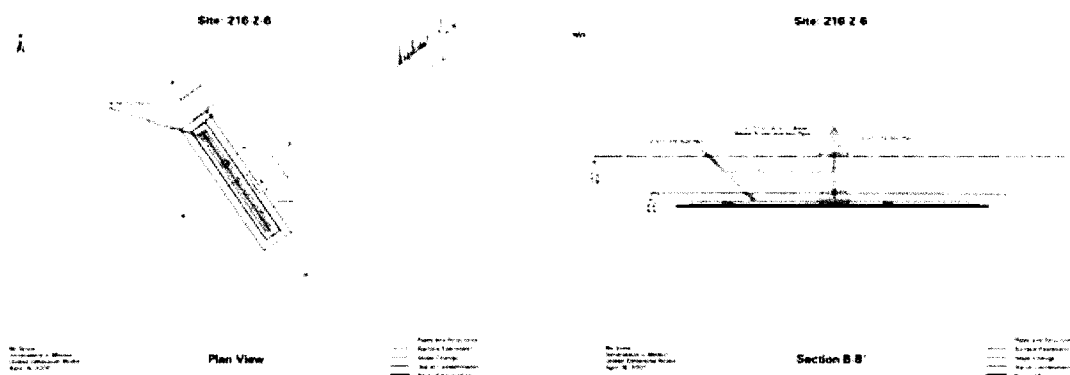
Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$447,000

References:

WIDS General Summary Report, DOE/RL-2001-01, DOE/RL-2006-51

216-Z-6



Site Name: 216-Z-6, 231-W-4 Crib, 231-Z-6, 216-W-4, 231-W Crib, 216-Z-4, 216-Z-6 & 6A Crib

Site Type: Crib

Facility: PFP Area

Current OU: 200-MG-1

Former OU: 200-PW-6

Waste Site Description:

The 216-Z-6 is a below grade, inactive waste management unit. The site consists of a rectangular wooden box set in the base of an excavation. The trench was fed by an above ground pipeline. The 216-Z-6 Crib received process waste from the 231-Z Building by an overground line from the 231-W-151 Sump. The site was only used for one month, and abandoned due to plugging of the surrounding soil by process sludge and precipitates. The site was surface stabilized in February 1990. When the site was retired in 1945, it was deactivated by capping the transfer line west of the 231-Z-151 Sump, and removing above ground piping. There have been previous cave-ins at this site and there is a potential for further collapse.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Contaminated Effluent

Release Type: Liquid

Dimensions (estimated):

Site Length:	22.4 m (73.6 ft)	Site Depth:	2.4 m (8.0 ft)
Site Width:	9.3 m (30.5 ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	208.3 m ² (2244.8 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Am-241, Cs-137, Co-60, Sr-90, H3
Nonradiological	X	PCB Arochlor 1254, Se

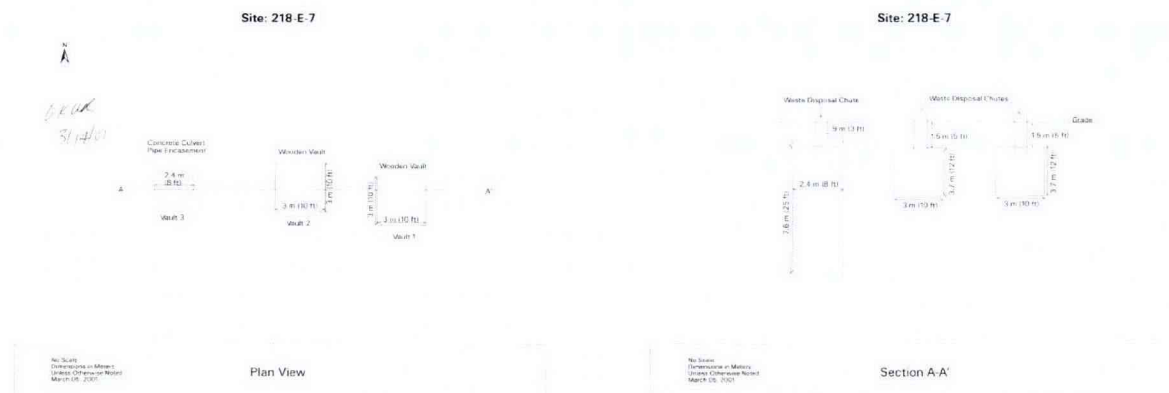
Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$495,000

References:

WIDS General Summary Report, DOE/RL-2001-01, DOE/RL-2006-51

218-E-7

**Site Name:** 218-E-7, 200 East 222-B Vaults**Site Type:** Burial Vault**Current OU:** 200-MG-1**Facility:** B Plant Area**Former OU:** 200-SW-2**Waste Site Description:**

The site consists of three underground vaults. The two original wooden vaults are 3 by 3 m (10 by 10 ft), and 3.7 m (12 ft) deep. The tops of the vaults are 1.5 m (5 ft) below grade. The wooden vaults are open at the bottom. They are constructed of 5-cm (2-in.) wood planking. The third replacement vault is an 2.4-m (8-ft) diameter concrete culvert pipe encasement, 7.7 m (25.2 ft) deep. The encasement has a 23-cm (9-in.) concrete cover and a 0.3-m (1-ft) thick concrete floor. All three vaults were connected to the surface with waste disposal chutes. The site received mixed fission product/transuranic wastes.

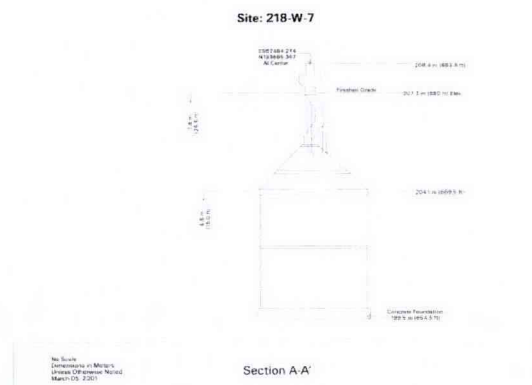
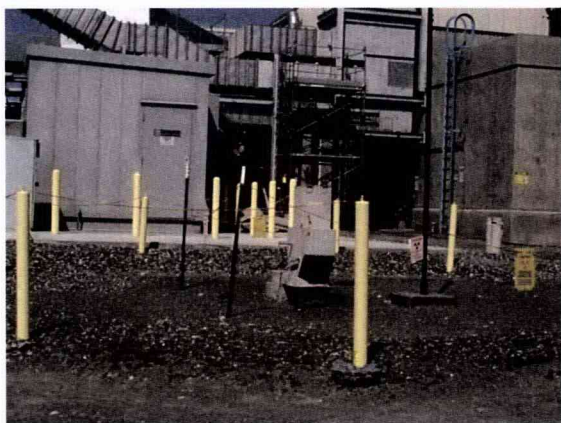
Related Site Structure: None**Site Posting:** None**Release Mechanism:** Mixed fission product/transuranic wastes.**Release Type:** Solid**Dimensions (estimated):****Site Length:** 18.0 m (59.0 ft)**Site Width:** 4.6 m (15.0 ft)**Site Area:** 82.8 m² (885 ft²)**Site Depth:** 8.8 m (29.0 ft)**Cover Thickness:** 0.3-0.46 m (1-1.5 ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Mixed fission products/ transuranic waste.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$4,741,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

218-W-7



Site Name: 218-W-7, 222-S Vault
Site Type: Burial Vault
Current OU: 200-MG-1

Facility: REDOX Area
Former OU: 200-SW-2

Waste Site Description:

The waste site is a carbon steel burial vault. The outer surface of the vault is coated with a layer of hot coal tar enamel to prevent corrosion, 4.3 meters (14 feet) deep, resting on a 0.3-meter (1-foot) concrete foundation. The vault has a dome and vent structure that extends 3.2 meters (10.5 feet) to the surface. The ground surface is graveled, and the vent is protected by yellow metal poles and a chain with radiation zone signs. The site received dry, packaged laboratory and sampler wastes from the 222-S Laboratory.

Related Site Structure: Site UPR-200-W-137 is the contamination inside this vault, and is (in effect) a duplicate site.

Site Posting: Radiation Zone

Release Mechanism: Disposal of dry, packaged laboratory and sampler wastes.

Release Type: Solid and Liquid (?)

Dimensions (estimated):

Site Length: 3.7 m (12.0 ft)

Site Depth: 7.8 m (25.5 ft)

Site Width: 3.7 m (12.0 ft)

Cover Thickness: 0 m (0 ft)

Site Area: 13.4 m² (144 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Mixed
Nonradiological	X	Unknown

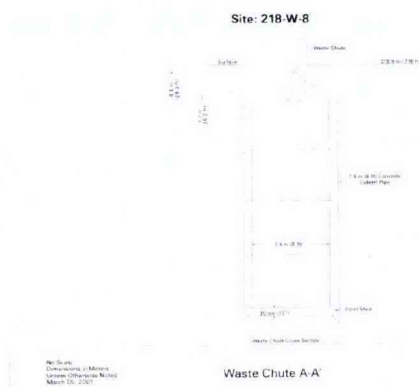
Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$541,000

References:

WIDS General Summary Report, DOE/RL-2004-60

218-W-8



Site Name: 218-W-8, 222-T Vault

Site Type: Burial Vault

Current OU: 200-MG-1

Facility: T Plant Area

Former OU: 200-SW-2

Waste Site Description:

Three underground vaults are contained in this site. The two original vaults are 3 by 3 by 3.7 m (10 by 10 by 12 ft) deep, made of 5.1 by 30.5-cm (2 by 12-in) wooden planking, with the tops 1.5 m (5 ft) below grade. The third replacement vault is a concrete culvert pipe encasement 2.4 m (8 ft) in diameter and 7.6 m (25 ft) long and 1 m (3.2 ft) below grade. The top of the encasement is a 23-cm (9-in.) precast concrete cover and the bottom is a 30.5-cm (12-in.) thick concrete floor. The disposal chutes for the wooden vault were removed. The site received laboratory process sample waste from the 222-T Building.

Related Site Structure: None

Site Posting: None

Release Mechanism: Disposal laboratory process sample waste

Release Type: Solid and Liquid (?)

Dimensions (estimated):

Site Length: 24.6 m (81.0 ft)

Site Width: 13.1 m (43.1 ft)

Site Area: 322.3 m² (3,495.0 ft²)

Site Depth: 8.8 m (29.0 ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	Mixed
Nonradiological	X	Unknown

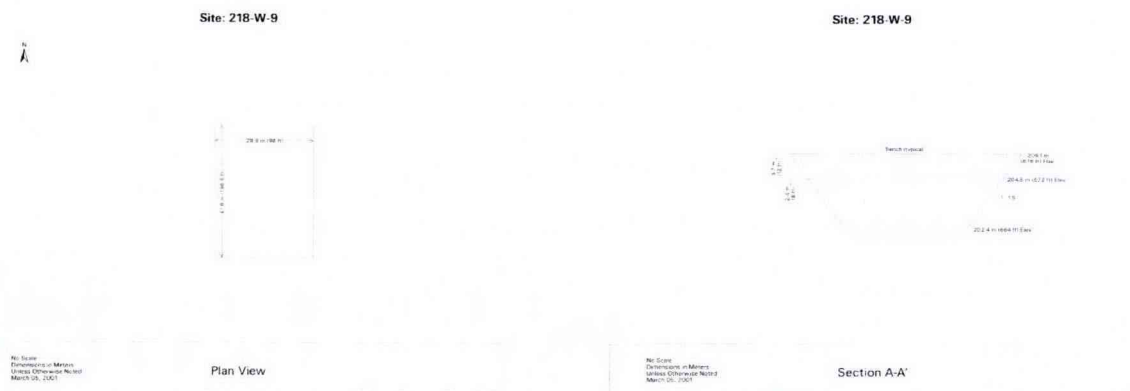
Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$800,000

References:

WIDS General Summary Report, DOE/RL-2004-60

218-W-9



Site Name: 218-W-9, Dry Waste Burial Ground No. 9, Non-TRU Dry Waste No. 009

Site Type: Burial Ground

Facility: REDOX Area

Current OU: 200-MG-1

Former OU: 200-SW-2

Waste Site Description:

The burial area is 42.7 m (140 ft) by 29.8 m (98 ft). The location is designated by four corner posts and chain. No data is available regarding depth, slope, or actual area used inside the posted area. The burial trench contains an unknown amount of sheet metal scrap, including the 211-S Tank taken from the REDOX Facility. The waste site is associated with pipeline 200-W-139-PL. The pipeline runs beneath the eastern edge of 218-W-9 posted area. The unplanned release UPR-200-W-109 documents a break in the pipeline occurred inside the posted area of the 218-W-9 waste site in 1969.

Related Site Structure: The waste site is associated with pipeline 200-W-139-PL. The pipeline runs beneath the eastern edge of the 218-W-9 posted area. The Unplanned Release UPR-200-W-109 documents a break in the (200-W-139-PL) pipeline occurred inside the posted area of the 218-W-9 waste site.

Site Posting: Unknown

Release Mechanism: Burial Ground

Release Type: Solid

Dimensions (estimated):

Site Length: 43.0 m (140.0 ft)

Site Depth: 3.7 m (15.0 ft)

Site Width: 30.0 m (98.0 ft)

Cover Thickness: 0.45-0.60 m (1.5-2.0 ft)

Site Area: 1,290.0 m² (13,720.0 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Mixed. Waste contains <0.1 curie total beta. REDOX scrap metal was contaminated with ruthenium-106.
Nonradiological	X	Unknown

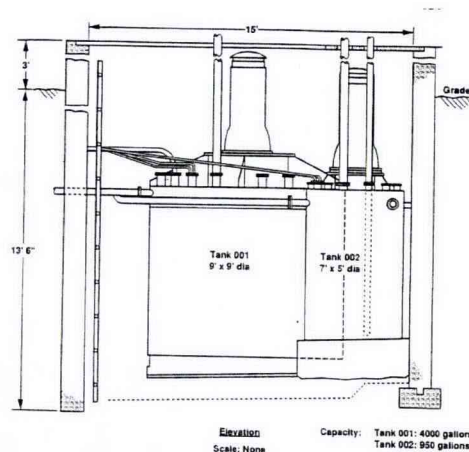
Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$1,012,000

References:

WIDS General Summary Report, DOE/RL-2004-60

231-W-151



Site Name: 231-W-151, 231-W-151 Vault, 231-W-151-001 (Tank), 231-W-151-002 (Tank), 231-W-151 Sump, 231-Z-151 Sump, IMUST, Inactive Miscellaneous Underground Storage Tank (See Sub sites)

Site Type: Receiving Vault

Current OU: 200-MG-1

Facility: PFP Area

Former OU: 200-PW-6

Waste Site Description:

The unit is a concrete vault partially underground with 3 steel risers and one vent structure protruding from holes in the top. The vault contains two tanks. It is posted with Contamination Area/Radiation Area signs and Restricted Access Unsafe Structure, Confined Space and IMUST signs. The 231-W-151 vault tanks were installed to receive drainage from about 75 floor drains in Building 231-Z. Solids in the floor drainage would settle out leaving sludge and sediment in the bottom of the tanks. Waste was diverted to the 216-Z-5, 216-Z-6, 216-Z-7 cribs and the 216-Z-10 Reverse Well through this vault. The tanks were used for neutralizing 231-Z Building wastes prior to disposal to a crib. Since 231-Z was used to finish plutonium, any wastes or chemicals generated or used in the process may have conceivably been introduced to the 231-W-151 vault tanks. Tank 231-W-151-001 is located within the 231-W-151 Vault. It is a 15,140 liter (4,000 gallon) stainless steel tank that received drainage from the 231-Z building floor drains. The drainage was routed to 231-W-151-002, which when filled, overflowed into 231-W-151-001. The solids would settle out into the tanks and the supernate was discharged to the 216-Z-7 crib. Tank operations began in 1948 and were discontinued in 1974. The inlet lines to the tank have been blanked off. In 1974, a sample was taken that indicated 231-W-151-001 contained only 0.001 grams of plutonium. The tank contents were reported to be 5,413 liters (1,430 gallons) of supernate and no sludge. Tank 231-W-151-002 is located within the 231-W-151 Vault. It is a 3,596 liter (950 gallon) stainless steel tank that received drainage from the 231-Z building floor drains. The solids would settle out into the tanks and the supernate was discharged to the 216-Z-7 crib. Tank operations began in 1948 and were discontinued in 1974. The inlet lines to the tank have been blanked off. In 1974, a sample was taken that indicated 231-W-151-002 contained 228 grams of plutonium in the sludge and less than 0.001 grams of plutonium in the supernate. The tank contents were reported to be 3,615 liters (955 gallons) of supernate and 45 liters (12 gallons) of sludge.

Related Site Structure: The site is related to 231-Z. building, 216-Z-5, 216-Z-6, 216-Z-7, 216-Z-10 and UPR-200-W-130. The pipelines from 231-Z to this vault are site code 200-W-199-PL. The pipeline from the vault to 216-Z-5 is site code 200-W-202-PL. The pipeline from the vault to 216-Z-7 is site code 200-W-203-PL. The pipeline from the vault to 216-Z-10 is 200-W-204-PL.

Site Posting: Contamination Area/Radiation Area

Release Mechanism: Contaminated effluent

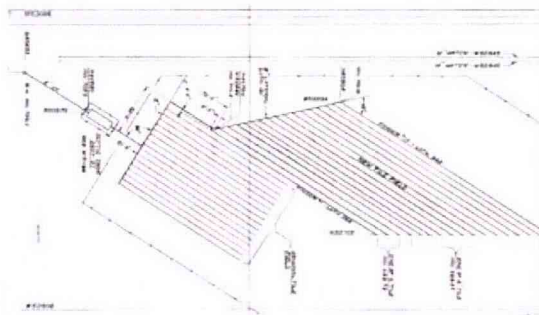
Release Type: Liquid and sludge

Dimensions (estimated):**Site Length:** 43.0 m (140.0 ft)**Site Width:** 30.0 m (98.0 ft)**Site Area:** 1,290.0 m² (13,720.0 ft²)**Site Depth:** 3.7 m (15.0 ft)**Cover Thickness:** 0.45-0.60 m (1.5-2.0 ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Alpha contamination was discovered on the concrete surface, 210,000 disintegrations per minute. Plutonium, Cs137, Sr89, Sr90, uranium, americium-241 in tank liquids and sludge. 228 grams of plutonium are in the sludge within tank 231-W-151-002.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$1,743,000**References:**

WIDS General Summary Report, DOE/RL-2001-01, DOE/RL-2006-51

2607-E1

Site Name: The 2607-E1 Septic Tank is associated with the 2607-E1 Tile Field, the 200 East shops and 282-E.

Site Type: Septic System

Facility: 200 E Admin Area

Current OU: 200-MG-1

Former OU: 200-ST-1

Waste Site Description:

This septic tank is constructed of reinforced concrete with walls and floors. The associated drain field is 778 square meters (8,376 square feet). The 2607-E1 Septic Tank and associated drain field were designed to accept and treat sanitary sewer effluent from facilities in central 200 East Area. According to WHC-SD-LL-SP-001 (1996), the 2607-E1 Septic Tank had been considered failed for last two years and was exhibiting evidence of stress. The system was replaced with a new regional system.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length: 7.9 m (26.0 ft)

Site Depth: 4.3 m (14.0 ft)

Site Width: 3.8 m (12.5 ft)

Cover Thickness: None m (None ft)

Site Area: 30.0 m² (325.0 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length: 92.9 m (305.0 ft)

Site Depth: 1.9 m (6.5 ft)

Site Width: 18.3 m (60.0 ft)

Cover Thickness: Not Specified m (Not Specified ft)

Site Area: 1700.1 m² (18300.0 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	28.9 m (95.0 ft)	Site Depth:	1.9 m (6.5 ft)
Site Width:	19.8 m (65.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	572.2 m ² (6175.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$866,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E12**Site Name:** 2607-E12, 2607-E12 Septic System**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** 200 E Ponds Area**Former OU:** 200-ST-1**Waste Site Description:**

The septic system consists of the old 5,000 gallon (18,927 liters) tank (the old drainfield was plugged off) that was converted to a dosing chamber when the new 10,000 gallon (37,854 liters) septic tank was installed approximately 45 feet (13.7 meters) to the south. The trench-like drainfield for this system is located approximately 400 feet (122 meters) east of the tanks. The settling chamber (the larger southern most tank) receives the effluent first. The effluent then goes to the dosing chamber (smaller northern tank) which is connected by underground pipeline to the trench-like drainfield.

Related Site Structure: None**Site Posting:** Not Specified**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** 6.2 m (20.4 ft)**Site Depth:** 4.6 m (15.0 ft)**Site Width:** 3.0 m (10.0 ft)**Cover Thickness:** None m (None ft)**Site Area:** 19.0 m² (204.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tank:**Dimensions (estimated):****Site Length:** 2.4 m (8.0 ft)**Site Depth:** 2.1 m (7.0 ft)**Site Width:** 2.4 m (8.0 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 5.9 m² (64.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 27.4 m (90.0 ft)**Site Depth:** 2.0 m (6.5 ft)**Site Width:** 18.3 m (60.0 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 501.7 m² (5400.0 ft²)**Potential Contaminants:**

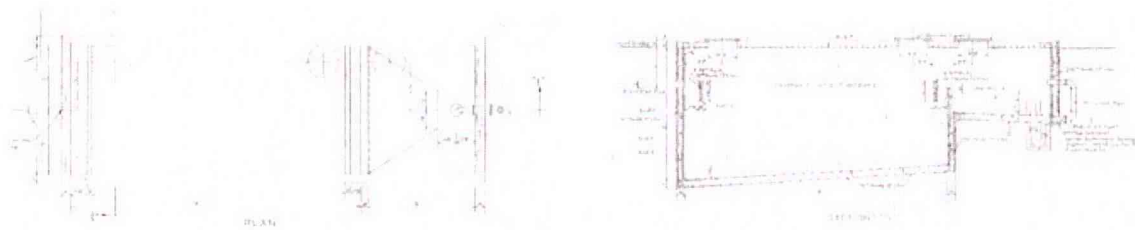
	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 83.8 m (275.0 ft)**Site Depth:** 1.4 m (4.5 ft)**Site Width:** 36.6 m (120.0 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 3065.8 m² (33000.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$1,416,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E3

Site Name: 2607-E3, 2607-E3 Septic Tank and Drainfield, 2607-E3 Septic System, TFS of 218-E-4, Tile Field South of 218-E-4

Site Type: Septic System

Facility: B Plant Area

Current OU: 200-MG-1

Former OU: 200-ST-1

Waste Site Description:

The site is a septic tank and drainfield. It is surrounded with a chain and marked with a sign that reads Sanitary Sewer/Drain Field. The septic tank is constructed of reinforced concrete. The tank is 8.7 m (28 ft 8 in.) long, 2.7 m (9 ft) wide, and 3.8 m (12 ft 6 in.) deep (interior dimensions). The tank had a design capacity of 38,680 L (10,220 gal) based on a user capacity of 292 persons, a flow of 132 L (35 gal) of sewage per capita per day, and an average detention time of 1 day. The top of the tank is at the ground surface. The tank was accessed through three 0.9 m (3 ft) manholes. The drainfield is comprised of at least 712 m (2,336 ft) of vitrified clay pipe or drain tile (at least 2.4 m [8 ft] per capita). The laterals are open jointed and are spaced 2.4 m (8 ft) apart.

Related Site Structure: The 2607-E3 Septic System was associated with B-Plant Facilities.

Site Posting: Sanitary Sewer/Drain Field

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	9.3 m (30.3 ft)	Site Depth:	4.2 m (13.9 ft)
Site Width:	3.3 m (10.7 ft)	Cover Thickness:	None m (None ft)
Site Area:	30.2 m ² (324.2 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	79.2 to 96.9 m (260 to 318 ft)	Site Depth:	1.77 to 2.44 m (5.8 to 8.0 ft)
Site Width:	65.5 to 76.2 m (215 to 250 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	Irregular m ² (Irregular ft ²)		

Potential Contaminants:

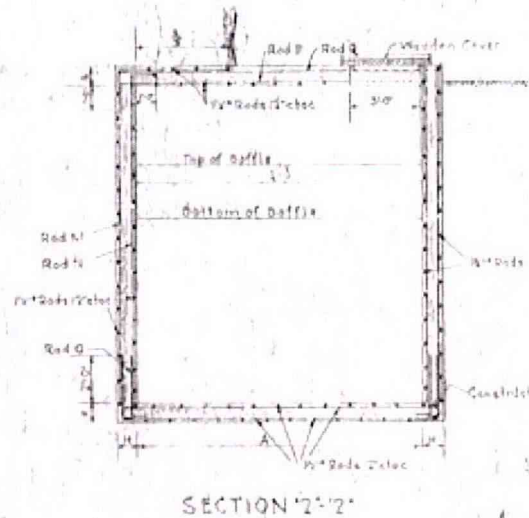
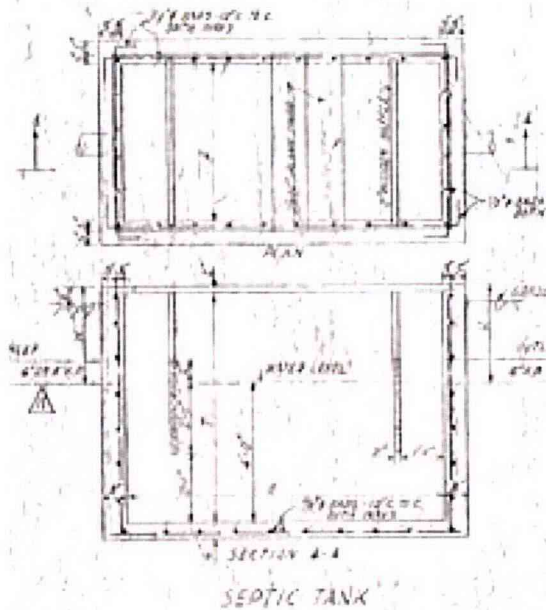
	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$855,000

References:

WIDS General Summary Report, DOE/RL-2002-14

2607-E4

Site Name: 2607-E4, 2607-E4 Septic Tank and Tile Field

Site Type: Septic System

Current OU: 200-MG-1

Facility: B Plant Area

Former OU: 200-ST-1

Waste Site Description:

The septic tank and tile field are marked with a Sanitary Sewer/Drain Field sign and lie with a posted URM area. The 2607-E4 Septic Tank is constructed of reinforced concrete that drains to an adjacent tile field. DOE/RL-92-05 states that this system is not known to contain radionuclide or hazardous chemicals. However, the site is posted with URM signs. No information has been located to explain the radiological posting.

Related Site Structure: The 2607-E4 Septic Tank is associated with the 2607-E4 Tile Field and B-Plant Facilities.

Site Posting: Sanitary Sewer/Drain Field and URM

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:

Dimensions (estimated):

Site Length: 1.6 m (5.3 ft)

Site Depth: 2.7 m (9.0 ft)

Site Width: 1.0 m (3.3 ft)

Cover Thickness: None m (None ft)

Site Area: 1.6 m² (17.5 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

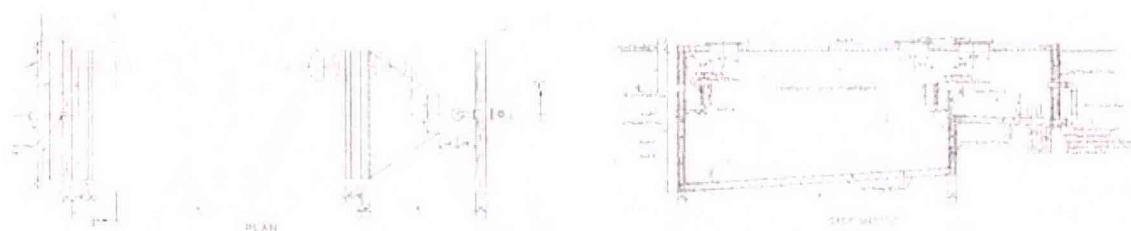
Site Length: Unknown m (Unknown ft) **Site Depth:** Unknown m (Unknown ft)
Site Width: Unknown m (Unknown ft) **Cover Thickness:** Not Specified m (Not Specified ft)
Site Area: Unknown m² (Unknown ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$289,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E5**Site Name:** 2607-E5**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** Semi-Works Area**Former OU:** 200-ST-1**Waste Site Description:**

This septic system receives sanitary wastewater and sewage. This system includes a single compartment tank with a dosing system and a leaching trench. An abandoned tile field which was replaced by the sanitary leaching trench is also included with this site. The construction details for the sanitary leach trench are contained in Hanford Drawing H-2-4602. The trench is 22.9 m (75 ft) long, 1.5 m (5 ft) wide at the bottom, and approximately 3.1 m (10 ft) deep. The excavation had a 1.5:1 side slope. Three rows of 20 x 20 x 41 cm (8 x 8 x 16 in.) bond beam concrete blocks that run the entire length of the trench site on top of 0.6 m (2 ft) of cobble fill. The trench was then covered with 0.3 m (1 ft) of gravel, a polyethylene cover and backfilled with the centerline of the trench filled to 0.3 m (1 ft) above the original grade. At the eastern end of the trench is a distribution box the received waste from the up gradient septic tanks and distributed it into the concrete block channels. The following information was obtained from HW-22955, Hot Semiworks Manual Part 1: All wastes from the 2704-C (Office and Gate House) and 2707-C (Change House) were considered sanitary waste and were disposed of separately from the chemical, or production waste. A 10.2 cm (4 in.) tile sewer ran from these buildings to a septic tank and tile field outside the Hot Semiworks exclusion area. The sewer ran parallel to and 20.7 m (68 ft) south of the exclusion area north fence. The septic tank is 19.2 m (63 ft) west of the exclusion area west fence. The septic tank is a buried concrete settling tank 3.65 m (12 ft) long by 1.8 m (6 ft) long by 1.5 m (5 ft) deep (inside dimensions). The bottom and walls are 20.3 cm (8 in.) thick. The top is 15.2 cm (6 in.) thick and has two 0.61 m (24 in.) diameter manholes. The overflow is 1.18 m (46.5 in.) from the bottom resulting in a hold-up of 7948.5 L (2100 gal). The overflow from the septic tank drained to a tile field. This field consists of 6 runs of 10.2 cm (4 in.) tile each 15.2 m (50 ft) long. The tile was laid with open joints in an 45.7 cm (18 in.) gravel bed 0.61 to 0.91 m (2 to 3 ft) below grade. Currently, the 2607-E5 Septic Tank and associated leaching trench accept and treat sanitary sewer effluent from the 209-E, the 2704-C, and the 2718-E Buildings. WHC-SD-LL-WP-001 indicates that 276-C (Solvent Handling Facility) was also serviced by this septic system. The referenced drawing M-2904-E, Sheet 27 does not show enough detail to make that determination. H-2-4033 shows that 276-C had no sanitary waste management. All liquid waste from this facility went to the 216-C-3 crib. Revision 7 of H-2-4033 (1963) revised the drawing to include the abandoned tile field and the two small inline septic tanks (2607-E7 and 2607-E). (The WIDS numbers for these two tanks are 2607-E7A and 2607-E7B). The two smaller tanks were probably added when 209-E (Critical Mass Laboratory) was tied into the system.

Related Site Structure: The 2607-E5 Septic Tank is associated with the 209-E, the 2704-C and the 2718-E Buildings. Original construction of the tank was for buildings 2704-C and 2707-C. Later modifications added two additional septic tanks, 2607-E7 (WIDS 2607-E7A), 2607-E (WIDS 2607-E7B), and the leaching trench. During the history of this system, mobile offices have been connected to the system. Two examples were the addition of MO-337 and MO-543. These mobile offices have since been moved.

Site Posting: Not Specified**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid

Tank:**Dimensions (estimated):****Site Length:** 5.2 m (17.0 ft)**Site Depth:** 1.9 m (6.1 ft)**Site Width:** 2.2 m (7.3 ft)**Cover Thickness:** None m (None ft)**Site Area:** 11.6 m² (124.1 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Nondangerous/ nonradioactive sewer effluent
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~15.2 m (~50 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** ~15.2 m (~50 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 231.0 m² (2500.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

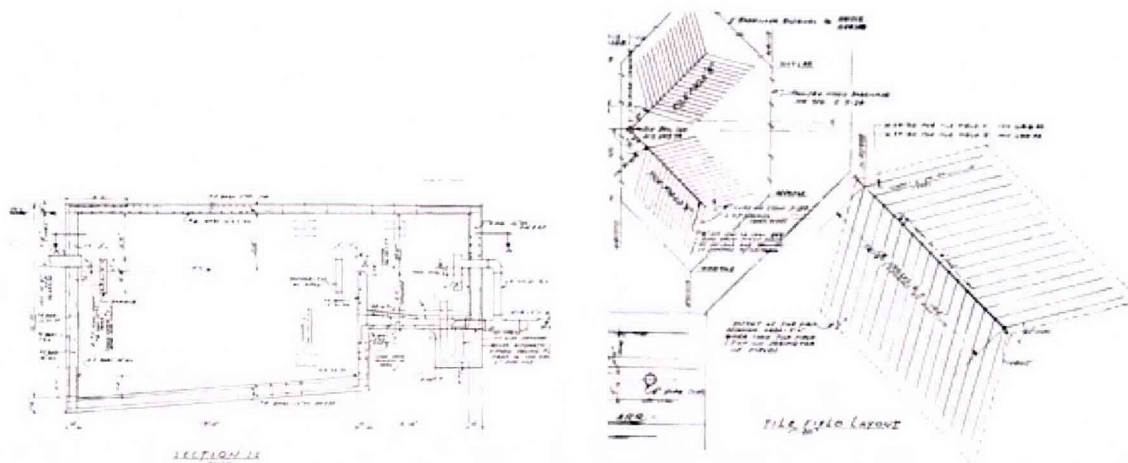
Tile Field:**Dimensions (estimated):****Site Length:** ~27.4 m (~90 ft)**Site Depth:** ~3.4 m (~11 ft)**Site Width:** ~4.6 m (~15 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 126.0 m² (1350.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$348,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E6



Site Name: 2607-E6, Septic Tank and Tile Field

Site Type: Septic System

Current OU: 200-MG-1

Facility: 200 E Admin Area

Former OU: 200-ST-1

Waste Site Description:

The site is a septic tank and drainfield. The drain field is surrounded by a wooden fence. The surface is vegetated with brush. The unit received sanitary waste from MO405 and the PUREX facility.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:

Dimensions (estimated):

Site Length: 8.6 m (28.3 ft)

Site Depth: 4.2 m (13.8 ft)

Site Width: 3.0 m (9.7 ft)

Cover Thickness: None m (None ft)

Site Area: 25.5 m² (274.5 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

2 Tile fields:*Dimensions (estimated):****Site Length:** ~35.1 (each) m (~115 (each) ft)**Site Width:** ~38.1 (each) m (~125 (each) ft)**Site Area:** 2671.0 m² (~28,750 ft²)**Site Depth:**

~1.0 (min) m (~3.3 (min) ft)

Cover Thickness:

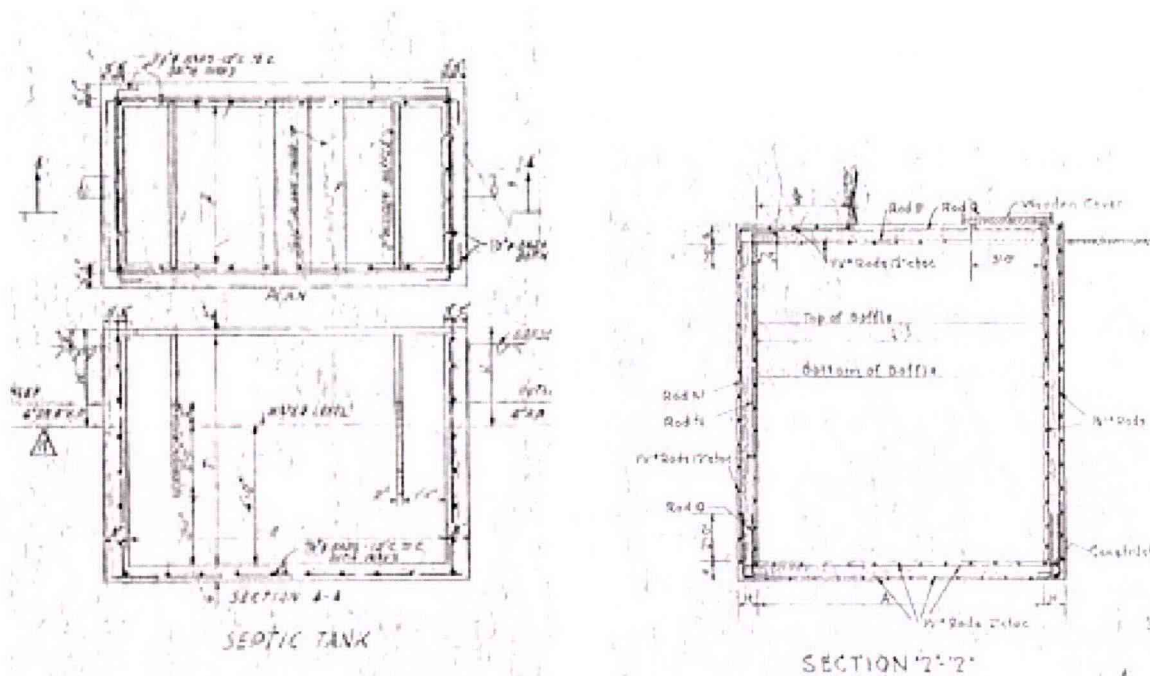
Not Specified m (Not Specified ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$623,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E7A**Site Name:** 2607-E7A, 2607-E7**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** Semi-Works Area**Former OU:** 200-ST-1**Waste Site Description:**

This septic tank receives sanitary wastewater and sewage. This tank is a 1.7 m (66 in.) by 2.7 m (105 in.) precast concrete septic tank with a single 61 cm (24 in.) diameter cover. The tank is inline with the 2607-E5 septic tank and the 2607-E (WIDS 2607-E7B). The septic tank drains to the sanitary leaching trench. The 2607-E7A Septic System and the associated leaching trench are designed to accept and treat sanitary sewer effluent from the 209-E, 2704-C, 2718-C, MO-337 (moved to another location), and MO-543 (moved to another location). The original tile field associated with 2607-E5 was abandoned at the time 2607-E7A and 2607-E7B were added. At the time of the addition of the two smaller septic tanks, a leaching trench was also added to the system. The 2607-E7A Septic System lies in a radiation zone. In 1995, Project W-364 provided a design to replace septic tanks 2607-E7A, 2607-E7B, and 2607-E5. The design was completed, approved, and a construction contract was awarded. Prior to any on-site construction activity, the project was cancelled.

Related Site Structure: The 2607-E7A Septic System is associated with the 209-E, 2704-C, 2718-E, MO-337 (moved) and the MO-543 (moved) Buildings. This system is in series with the 2607-E5, 2607-E7B Septic Tanks and a leaching trench.

Site Posting: Not Specified**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid

Tank:**Dimensions (estimated):****Site Length:** 2.7 m (8.8 ft)**Site Depth:** 1.7 m (5.5 ft)**Site Width:** 1.6 m (5.2 ft)**Cover Thickness:** None m (None ft)**Site Area:** 4.2 m² (45.5 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Nondangerous/ nonradioactive
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~15.2 m (~50 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** ~15.2 m (~50 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 231.0 m² (2500.0 ft²)**Potential Contaminants:**

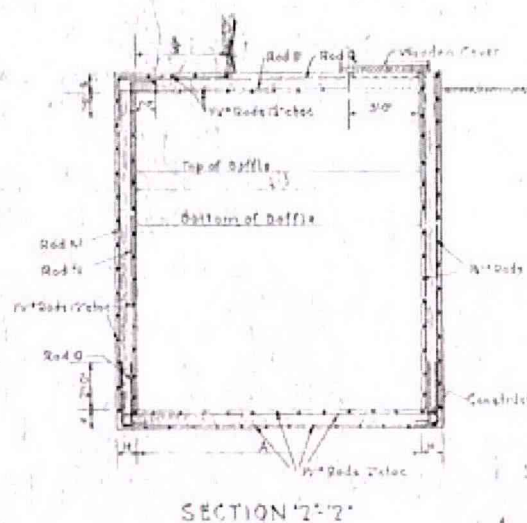
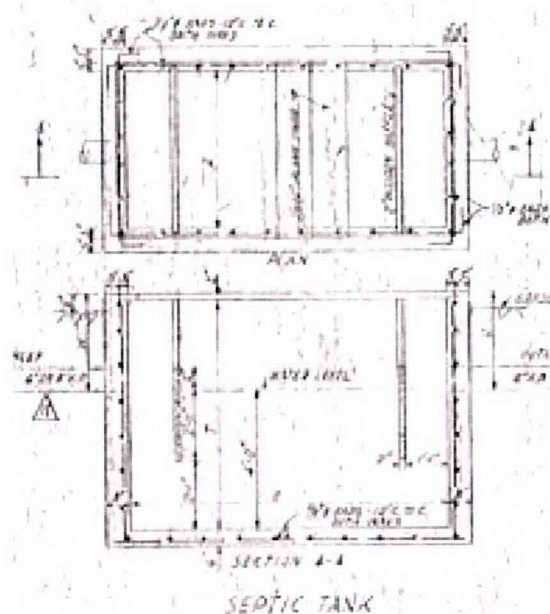
	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~27.4 m (~90 ft)**Site Depth:** ~3.4 m (~11 ft)**Site Width:** ~4.6 m (~15 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 126.0 m² (1350.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$168,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E7B

Site Name: 2607-E7B, 2607-E7B Septic System, 2607-E7

Site Type: Septic System

Current OU: 200-MG-1

Facility: Semi-Works Area

Former OU: 200-ST-1

Waste Site Description:

This septic tank receives sanitary wastewater and sewage and drains to the sanitary leaching trench. This tank is a 1.7 m (66 in.) by 2.7 m (105 in.) cancelled concrete septic tank with a single 61 cm (24 in.) diameter cover. The tank is inline with the 2607-E5 septic tank and the 2607-E7 (WIDS 2607-E7A). The 2607-E7B Septic System and the associated leaching trench are designed to accept and treat sanitary sewer effluent from the 209-E, 2704-C, 2718-C, MO-337 (moved to another location), and MO-543 (moved to another location). The original tile field associated with 2607-E5 was abandoned when 2607-E7A and 2607-E7B were added. At the time of the addition of the two smaller septic tanks, a leaching trench was also added to the system. The 2607-E7B Septic System lies in a radiation zone. In 1995, Project W-364 provided a design to replace septic tanks 2607-E7A, 2607-E7B, and 2607-E5. The design was completed, approved, and a construction contract was awarded. Prior to any on-site construction activity, the project was cancelled.

Related Site Structure: The 2607-E7B Septic System is associated with the 209-E, 2704-C, 2718-E, MO-337 (moved) and the MO-543 (moved) Buildings. This system is in series with the 2607-E5, 2607-E7A Septic Tanks and a leaching trench.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):****Site Length:** 2.7 m (8.8 ft)**Site Depth:** 1.7 m (5.5 ft)**Site Width:** 1.6 m (5.2 ft)**Cover Thickness:** None m (None ft)**Site Area:** 4.2 m² (45.5 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Nondangerous/ nonradioactive
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~15.2 m (~50 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** ~15.2 m (~50 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 231.0 m² (2500.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~27.4 m (~90 ft)**Site Depth:** ~3.4 m (~11 ft)**Site Width:** ~4.6 m (~15 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 126.0 m² (1350.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$168,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-E9

No Image Available

No Image Available

Site Name: 2607-E9, 242B/BL Septic Tank and Drain Field, 2607-E9 Septic System
Site Type: Septic System
Current OU: 200-MG-1

Facility: B Farm Area
Former OU: 200-ST-1

Waste Site Description:

This 1,900-L (500-gal) septic tank received sanitary wastewater and sewage from the 242-B and the 242-BL Buildings. This system has an associated drain field. It was abandoned and the tank filled with sand. The site is in a contamination area. A brief visit was made to the site in February 2000 to find the drainfield and to try to improve the mapping of the site. A "Drainfield" sign was found on the ground on the eastern side of the contamination area that surrounds the site. The former extent of the drainfield can be approximated using fence posts inside the contamination area (some of which still have chain attached), fallen chain on the ground plus the fence posts making up the eastern boundary of the contamination area. No access ports, lids or risers associated with the septic tank were visible. Evidence of the septic tank may have been obscured by tumbleweeds growing in the center of the contamination area near the drainfield. The 2607-E9 Septic Tank and associated drain field were designed to accept sanitary sewer effluent from the 242-B and the 242-BL Buildings. The area of the 242-B Building, where the 2607-E9 Septic Tank and associated drain field are located, is light chain barricaded with "Contamination Area" signs. Contaminated particulate releases from the B Tank Farm is the most likely source for the contamination.

Related Site Structure: The 2607-E9 Septic Tank is associated with a drain field and the 242-B and the 242-BL Buildings.

Site Posting: Drainfield, CA

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	Unknown m (Unknown ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Unknown m (Unknown ft)	Cover Thickness:	None m (None ft)
Site Area:	Unknown m ² (Unknown ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	~12.2 to ~18.3 m (~40 to 60 ft)	Site Depth:	~1.1 (max) m (~3.5 (max) ft)
Site Width:	~12.2 m (~40 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	Not Specified m ² (Not Specified ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$289,000

References:

WIDS General Summary Report, DOE/RL-2002-14

2607-EA

No Image Available

No Image Available

Site Name: 2607-EA, 2607-EA Septic Tank and Drywell**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** PUREX Area**Former OU:** 200-ST-1**Waste Site Description:**

The 2607-EA Septic System is a small septic tank and an associated drywell (cesspool). The system became inactive when the water lines to the 244-AR Vault ruptured and were not repaired. When the facility was isolated, lines feeding the building were blanked off to eliminate the potential source of water if the ruptured lines were repaired.

Related Site Structure: 244-AR Vault**Site Posting:** Not Specified**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** Unknown m (Unknown ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Unknown m (Unknown ft)**Cover Thickness:** None m (None ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** Not specified m (Not specified ft)**Site Depth:** ~2.13 m (~7 ft)**Site Width:** ~1.95 (outside diameter) m (~6.4 (outside diameter) ft)**Cover Thickness:** Not Specified m
(Not Specified ft)**Site Area:** Not Specified m² (Not Specified ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$336,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-EE

No Image Available

No Image Available

Site Name: 2607-EE, 2607-EE Septic System**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** PUREX Area**Former OU:** 200-ST-1**Waste Site Description:**

The site is a septic tank with a drain field extending northeast of the septic tank. The area is surrounded with light duty posts and chain. One riser pipe is visible. The line to the toilet and sink feeding the septic system was blanked and taken out of service in 1993.

Related Site Structure: The site is associated with the 202-A Facility and the 200-E-107 Stabilized Area.**Site Posting:** URM**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** Unknown m (Unknown ft)**Site Width:** Unknown m (Unknown ft)**Site Area:** Unknown m² (Unknown ft²)**Site Depth:** Unknown m (Unknown ft)**Cover Thickness:** None m (None ft)**Potential Contaminants:**

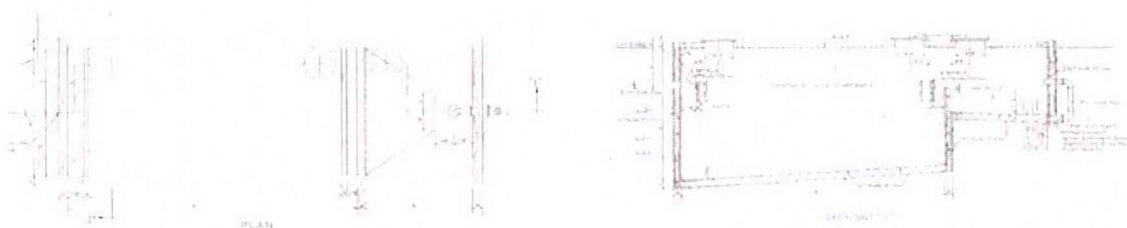
	Type	Constituents
Radiological	X	Unknown, received waste from PUREX so there is potential contamination
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 17.8 m (58.5 ft)**Site Width:** 17.4 m (57.0 ft)**Site Area:** 309.7 m² (3334.5 ft²)**Site Depth:** ~0.76 to 0.91 m (~2.5 to 3 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$289,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-W1

Site Name: 2607-W1
Site Type: Septic System
Current OU: 200-MG-1

Facility: T Plant Area
Former OU: 200-ST-1

Waste Site Description:

The 2607-W1 Septic Tank is constructed of reinforced concrete and receives sanitary wastewater and sewage. There is a drain field associated with the system. This system was reconstructed in 1994. The 2607-W1 Septic Tank and associated drain field are designed to accept sanitary sewer effluent from connected facilities. Parts of the previous system were reused (for example, the septic tank) during the 1994 upgrade, and an additional tank was added to the old tank. The two tanks were tied together in series, and are located on the east side of Bridgeport Avenue. The new drain field runs north-south.

Related Site Structure: The 2607-W1 Septic Tank is associated with the 2607-W1 drain field, 2707-W, 2713-W, 283-W, 277-W, 275-W, 274-W, 284-W, 2723-W, 2704-W, 2719-WB, 272-W, MO-278, MO-279, MO-235, MO-406, MO-412, MO-215, MO-056, MO-204, MO-240, and MO-287.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent
Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	3.0 m (10.0 ft)	Site Depth:	3.0 m (10.0 ft)
Site Width:	2.7 m (9.0 ft)	Cover Thickness:	None m (None ft)
Site Area:	8.4 m ² (90.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tank:**Dimensions (estimated):**

Site Length:	5.2 m (17.0 ft)	Site Depth:	3.7 m (12.0 ft)
Site Width:	2.7 m (9.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	14.2 m ² (153.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	162.8 m (534.0 ft)	Site Depth:	2.0 m (6.5 ft)
Site Width:	41.8 m (137.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	6796.6 m ² (73158.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	50.3 m (165.0 ft)	Site Depth:	1.6 m (5.2 ft)
Site Width:	36.6 m (120.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	1839.5 m ² (19800.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

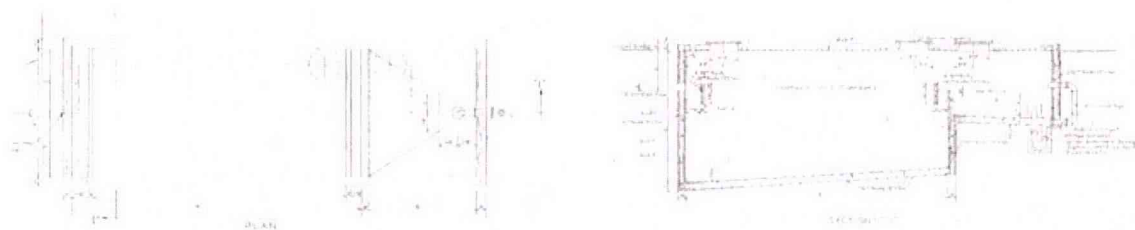
Site Length:	106.7 m (350.0 ft)	Site Depth:	1.7 m (5.5 ft)
Site Width:	39.6 m (130.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	4227.1 m ² (45500.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$1,347,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-W3**Site Name:** 2607-W3**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** T Plant Area**Former OU:** 200-ST-1**Waste Site Description:**

The 2607-W3 Septic Tank has been pumped, sampled, filled with sand and abandoned in place. The 2607-W3 Septic Tank was constructed of reinforced concrete. At one time, the eastern access was posted with a Radioactive Material warning sign. This system includes a drain field that was expanded in the 1950's. The 2607-W3 Septic Tank and associated drain field were designed to accept sanitary sewer effluent from the 221-T, the 222-T, the 224-T, and the 271-T Buildings. The 2607-W3 effluent was redirected to the 2607-W1 system. The tie-line is expected to remain operational throughout the remaining Hanford Site mission. A contaminated process sewer line runs parallel to the sanitary sewer line in this area.

Related Site Structure: The 2607-W3 Septic Tank as associated with the 221-T, the 222-T, the 224-T, and the 271-T Buildings.

Site Posting: RM**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** 9.3 m (30.3 ft)**Site Depth:** 4.2 m (13.9 ft)**Site Width:** 3.3 m (10.7 ft)**Cover Thickness:** None m (None ft)**Site Area:** 30.2 m² (324.2 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~73.2 to ~107.3 m (~240 to ~352 ft)**Site Depth:** ~.8 to ~2.3 m (~2.5 to ~7.5 ft)**Site Width:** ~35.4 m (~116 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** Not Specified m² (Not Specified ft²)

Potential Contaminants:

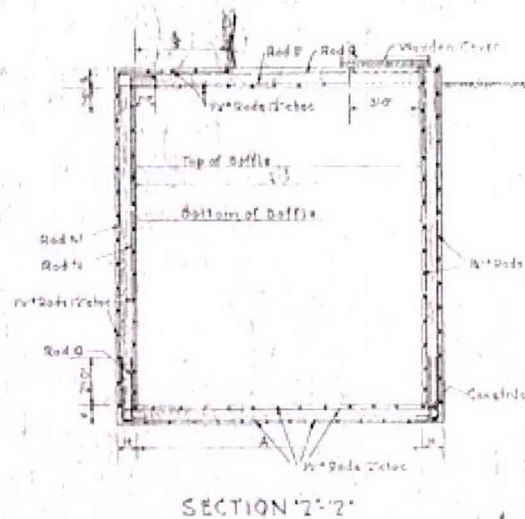
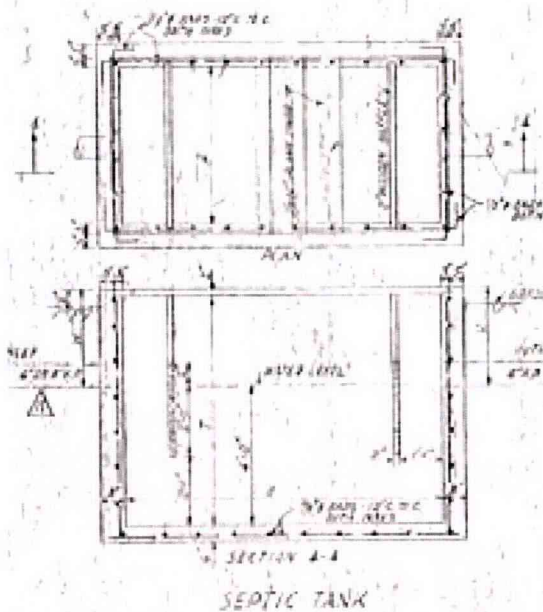
	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** ~60.4 to ~84.7 m (~198 to ~278 ft)**Site Width:** ~25.6 m (~84 ft)**Site Area:** Not Specified m² (Not Specified ft²)**Site Depth:** ~.8 to ~2.3 m (~2.5 to ~7.5 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$509,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-W4**Site Name:** 2607-W4, T Plant Septic Tank and Drain Field**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** T Plant Area**Former OU:** 200-ST-1**Waste Site Description:**

The 2607-W4 Septic Tank is a single compartment tank constructed of reinforced concrete. The drain field measures 3.1 by 9.2 m (10 ft by 30 ft). The site is surrounded by a light chain barricade. At one time the area was marked with surface contamination warning signs. A site visit in October of 1998 indicated the area is no longer a Radiation Area. This system includes a drain field and receives sanitary wastewater and sewage from the 221-T Canyon Building. The 2607-W4 Septic Tank and associated drain field are designed to accept sanitary sewer effluent from the 221-T Canyon Building. In 1991, the 2607-W4 septic system was within a radiological zone. In 1998, the area had been downposted.

Related Site Structure: The 2607-W4 Septic Tank is associated with the 221-T Canyon Building.**Site Posting:** SCA**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** 1.6 m (5.3 ft)**Site Depth:** 2.7 m (9.0 ft)**Site Width:** 1.0 m (3.3 ft)**Cover Thickness:** None m (None ft)**Site Area:** 1.6 m² (17.5 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 9.2 m (30.0 ft)**Site Width:** 3.1 m (10.0 ft)**Site Area:** 28.5 m² (300.0 ft²)**Site Depth:**

Unknown m (Unknown ft)

Cover Thickness:

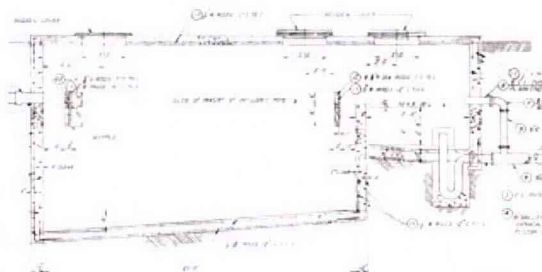
Not Specified m (Not Specified ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$289,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-W6

Site Name: 2607-W6
Site Type: Septic System
Current OU: 200-MG-1

Facility: 200 W Ponds Area
Former OU: 200-ST-1

Waste Site Description:

The 2607-W6 system was reconstructed in 1995. The unit has a sign correctly labeling it. A concrete structure with three metal manhole covers lies on the surface. The 2607-W6 Septic Tank is constructed of reinforced concrete and receives sanitary wastewater and sewage. The 2607-W6 Septic Tank and associated drain field are designed to accept sanitary sewer effluent from the connected facilities. The dimensions are for the original septic system. No dimensions for the expanded septic tank were available. An upgrade or replacement of the existing larger on site system will be required in the year 2025, as the existing system will be beyond its useful life. Some components of this system may be reused (septic tank, etc.).

Related Site Structure: The 2607-W6 Septic Tank is associated with the 202-S, the 222-S, and the 2704-S Buildings and MO-037, MO-039, MO-028, MO-924, and MO-936.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	7.1 m (23.4 ft)	Site Depth:	4.6 m (15.0 ft)
Site Width:	3.8 m (12.5 ft)	Cover Thickness:	None m (None ft)
Site Area:	27.2 m ² (292.5 ft ²)		

Potential Contaminants:

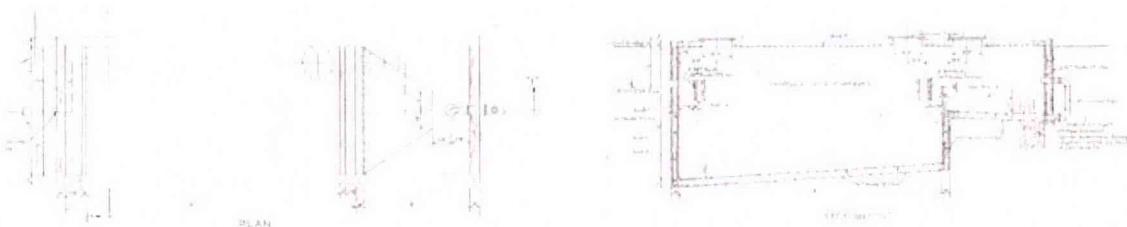
	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 97.5 m (320.0 ft)**Site Width:** 73.2 m (240.0 ft)**Site Area:** 7135.0 m² (76800.0 ft²)**Site Depth:** 2.0 m (6.5 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$1,008,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-W8

Site Name: 2607-W8
Site Type: Septic System
Current OU: 200-MG-1

Facility: PFP Area
Former OU: 200-ST-1

Waste Site Description:

This system is located adjacent to posted radiation zone containing the 216-Z-5 and 216-Z-4 cribs. The 2607-W8 Septic Tank is constructed of reinforced concrete and has three manhole covers visible on the surface. It is a single compartment tank with an attached dosing siphon. This unit includes a tile field. The site is marked with a sign that read "Septic Tank - 2607-W8". The 2607-W8 Septic Tank and associated tile field were designed to accept sanitary sewer effluent from the 231-Z Building. The 231-Z Building was associated with the plutonium product finishing process. The tank capacity and dimensions include the settling tank and dosing siphon chamber.

Related Site Structure: The 2607-W8 Septic Tank is associated with a sanitary tile field and the 231-Z Building.

Site Posting: Radiation Zone

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	5.9 m (19.3 ft)	Site Depth:	3.9 m (12.9 ft)
Site Width:	2.4 m (7.7 ft)	Cover Thickness:	None m (None ft)
Site Area:	13.8 m ² (148.6 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	Unknown m (Unknown ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Unknown m (Unknown ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	Unknown m ² (Unknown ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$301,000

References:

WIDS General Summary Report, DOE/RL-2002-14

2607-W9

No Image Available

No Image Available

Site Name: 2607-W9, 2707-SX Septic Tank**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** S/U Farm Area**Former OU:** 200-ST-1**Waste Site Description:**

A gravel surface covers the 2607-W9 Septic Tank and Tile Field. Two posts with a sun-bleached sign mark the location of the tile field.

Related Site Structure: The 2607-W9 Septic Tank is associated with the 2707-SX Change House.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length: 5.9 m (19.5 ft)

Site Depth: 3.7 m (12.0 ft)

Site Width: 1.8 m (6.0 ft)

Cover Thickness: None m (None ft)

Site Area: 10.6 m² (117.0 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	no radionuclides are known to have been disposed to the septic system, the change trailer drains emptied into it.
Nonradiological	X	
		Unknown

Tile Field:**Dimensions (estimated):**

Site Length: Unknown m (Unknown ft)

Site Depth: Unknown m (Unknown ft)

Site Width: Unknown m (Unknown ft)

Cover Thickness: Not Specified m (Not Specified ft)

Site Area: Unknown m² (Unknown ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	
		Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$301,000

References:

WIDS General Summary Report, DOE/RL-2002-14

Tank:**Dimensions (estimated):**

Site Length:	3.7 m (12.0 ft)	Site Depth:	1.5 m (5.0 ft)
Site Width:	2.4 m (8.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	8.9 m ² (96.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	17.4 m (57.0 ft)	Site Depth:	0.6 m (2.0 ft)
Site Width:	13.7 m (45.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	238.3 m ² (2565.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$289,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-WL**No Image Available****No Image Available****Site Name:** Active system supports 272WA (tank farm support facility)**Site Type:** Septic System**Facility:** WM Area**Current OU:** 200-MG-1**Former OU:** 200-ST-1**Waste Site Description:**

The 2607-WL Septic System is constructed of reinforced concrete. The septic system includes a trench-type drainfield. The septic tank and drainfield are surrounded by a chain barricade with a sign stating "Septic Tank" posted. The 2607-WL Septic Tank was designed to accept and treat sanitary sewer effluent from the associated facility, and discharge the effluent to the 2607-WL Drain Field. This drain field, in turn, discharges the effluent into the ground.

Related Site Structure: The 2607-WL-Septic Tank is associated with a drain field and the 272-WA Building.**Site Posting:** Septic Tank**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** Unknown m (Unknown ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Unknown m (Unknown ft)**Cover Thickness:** None m (None ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 18.3 m (60.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 12.2 m (40.0 ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Site Area:** 223.3 m² (2400.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$301,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-WZ

No Image Available

No Image Available

Site Name: 2607-WZ**Site Type:** Septic System**Current OU:** 200-MG-1**Facility:** S/U Farm Area**Former OU:** 200-ST-1**Waste Site Description:**

The 2607-WZ Septic System includes a drain field. A WIDS site code sign on a post marks the assumed location. The 2607-WZ Septic System is listed in WHC-EP-0216. However, the septic tank is not visible on Hanford Site drawing, H-2-44511, sheets 22, 23 or 30. Due to the limited reference material, field investigations are necessary to verify the existence of this system. Ground Penetrating Radar Scans of the area were done in April 2004 and July 2005. A potential location was noted on the 2005 scan.

Related Site Structure: The 2607-WZ Septic Tank is associated with the 241-SX Tank Farm.**Site Posting:** Not Specified**Release Mechanism:** Sanitary Effluent**Release Type:** Liquid**Tank:****Dimensions (estimated):****Site Length:** Unknown m (Unknown ft)**Site Width:** Unknown m (Unknown ft)**Site Area:** Unknown m² (Unknown ft²)**Site Depth:** Unknown m (Unknown ft)**Cover Thickness:** None m (None ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

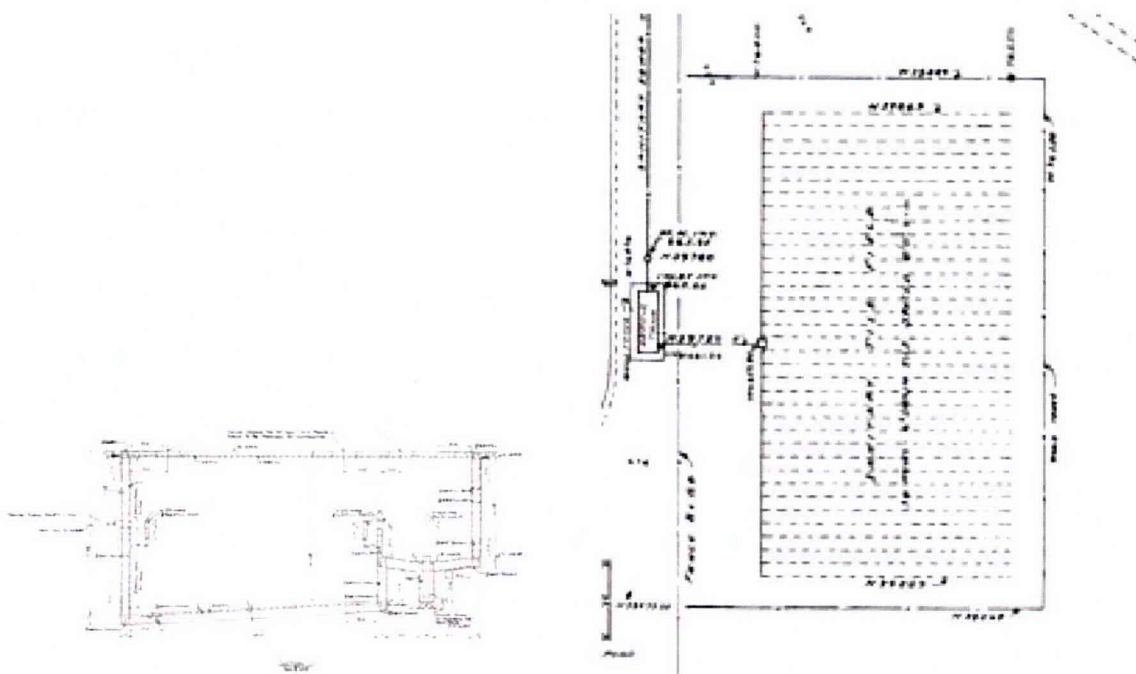
Tile Field:**Dimensions (estimated):****Site Length:** Unknown m (Unknown ft)**Site Width:** Unknown m (Unknown ft)**Site Area:** Unknown m² (Unknown ft²)**Site Depth:** Unknown m (Unknown ft)**Cover Thickness:** Not Specified m (Not Specified ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$289,000

References:

WIDS General Summary Report, DOE/RL-2002-14

2607-Z

Site Name: 2607-Z
Site Type: Septic System
Current OU: 200-MG-1

Facility: PFP Area
Former OU: 200-ST-1

Waste Site Description:

The 2607-Z Septic Tank and drain field lie in a fenced area. The septic tank is constructed of concrete and is a two chamber tank. Three manholes are provided for personnel entry. The drain field measures approximately 86 m (282 ft) in length and 47 m (154 ft) in width. The tile field is located inside a fenced area.

Related Site Structure: The 2607-Z Septic Tank is associated with the 234-5Z, 2704-Z, 270-Z, 236-Z, 292-Z, 2701-Z, 2701-ZA, and the 2701-ZB Buildings.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent
Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	11.8 m (38.7 ft)	Site Depth:	5.8 m (18.9 ft)
Site Width:	4.1 m (13.5 ft)	Cover Thickness:	None m (None ft)
Site Area:	48.5 m ² (522.5 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):****Site Length:** 45.7 m (150.0 ft)**Site Width:** 85.4 m (280.0 ft)**Site Area:** 3902.8 m² (42000.0 ft²)**Site Depth:**

~1.5 to ~4.6 m (~ 3.5 to ~15 ft)

Cover Thickness:

Not Specified m (Not Specified ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$526,000**References:**

WIDS General Summary Report, DOE/RL-2002-14

2607-Z1

No Image Available

No Image Available

Site Name: 2607-Z1, Septic Tank and Drainfield
Site Type: Septic System
Current OU: 200-MG-1

Facility: PFP Area
Former OU: 200-ST-1

Waste Site Description:

The system (septic tank and drainfield) was constructed in 1958 and was pumped once a week. The drainfield location has been used as a laydown area in the past and the underground laterals may have been damaged.

Related Site Structure: The site is associated with 234-5Z Building Annex and 2736-ZB.

Site Posting: Not Specified

Release Mechanism: Sanitary Effluent

Release Type: Liquid

Tank:**Dimensions (estimated):**

Site Length:	2.6 m (8.5 ft)	Site Depth:	1.8 m (6.0 ft)
Site Width:	1.4 m (4.5 ft)	Cover Thickness:	None m (None ft)
Site Area:	3.5 m ² (38.3 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	no radionuclides or hazardous chemicals have been associated with this system, the facilities it serviced handled radioactive materials and may have contributed contaminants.
Nonradiological	X	Unknown

Tile Field:**Dimensions (estimated):**

Site Length:	30.5 m (100.0 ft)	Site Depth:	~1.1 m (~3.5 ft)
Site Width:	4.6 m (15.0 ft)	Cover Thickness:	Not Specified m (Not Specified ft)
Site Area:	140.3 m ² (1500.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$336,000

References:

WIDS General Summary Report, DOE/RL-2002-14

270-E-1

No Image Available

Site Name: 270-E-1, 270-E CNT, 270-E Condensate Neutralization Tank, 216-ER-1, IMUST, Inactive Miscellaneous Underground Storage Tank

Site Type: Neutralization Tank

Current OU: 200-MG-1

Facility: B Plant Area

Former OU: 200-PW-2

Waste Site Description:

The site is an underground steel tank. It is marked and posted with Restricted Access-Inactive Tank signs. It is located within a large URM Area that resulted from the stabilization of the adjacent 216-B-64 basin and UPR-200-E-64 sites. The tank was used to neutralize acidic process condensate from the 221-B and the 224-B facilities via the 241-ER-151 Diversion Box (lines V219, V225, 9719, 9653, 9808). Condensate entered the tank at the bottom and flowed upward through the limestone to an outlet pipe located 2.4 m (8 ft) above the tank bottom. The tank contained a limestone bed through which the condensate percolated, reacted, and then overflowed to the 216-B-12 Crib. The tank had a 100 cm (40 in) diameter chute and a 15 cm (6 in) diameter riser extending to the surface from the stainless steel below grade tank. The tank is buried approximately 20 ft (derived) deep. The tank stands vertically on a 0.46 m (1.5 ft) thick concrete pad. This tank was installed in 1952 as part of the 270-E Neutralization Facility. The tank was moved from 221-U, reworked and put to use as a neutralization tank. The 270-E wooden building with a wooden platform was located near the tank. A 100 cm (40 in) riser extended upward from the tank to the wooden platform. It is assumed that the riser was used to add limestone to the tank, as necessary, and that the wooden building was used to store the neutralization material. Drawing H-2-44502, sheet 22 indicates the 270-E Building was removed and the tank was capped and abandoned in the early 1960's. SK-2-56961, drawn in 1972, shows the 100 cm (40 in.) riser was cut below the ground surface and covered with earth. A 1974 letter states that an unsuccessful effort to sample the tank was made on July 1, 1974. The letter indicates a plan to cut the inlet line and pump the remaining liquid from the tank. The inlet and outlet lines would then be capped. Drawing H-2-44501 sheet 97 shows that the inlet and outlet lines have been capped. During the investigation of soil contamination surrounding the tank, a small diameter pipe, approximately 5 cm (2 in.) diameter, was visible near where the 270-E-1 is located. It is possible the pipe is a "Swab Riser" associated with an adjacent underground pipeline.

Related Site Structure: This site is associated with 270-E, the 221-B, 224-B Buildings and the 216-B-12 Crib. UPR-200-E-64 documents that ants brought contamination to the surface in the vicinity of the 270-E Tank and caused contamination to spread.

Site Posting: RA-IT, URM

Release Mechanism: Contaminated Effluent

Release Type: Liquid

Dimensions (estimated):

Site Length:	None m (None ft)	Site Depth:	2.6 m (8.5 ft)
Site Width:	2.7 m (9.0 ft)	Cover Thickness:	0 m (0 ft)
Site Area:	7.0 m ² (76.5 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	U-238, Sr-90, Cs-137, Pu, beta-emitters
Nonradiological	X	Uranium, As

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$482,000**References:**

WIDS General Summary Report, DOE/RL-2000-60, DOE/RL-2004-85, DOE/RL-2004-25

291-C-1

No Image Available

No Image Available

Site Name: 291-C-1, 291-C-1 Stack, 291-C Stack Burial Trench**Site Type:** Burial Ground**Current OU:** 200-MG-1**Facility:** Semi-Works Area**Former OU:** 200-SW-2**Waste Site Description:**

The 291-C Stack was a double-shell structure made of reinforced concrete, acid-resistant brick and mortar. The stack was demolished in 1988 and now lies in a trench south of where it stood. The area has been surface stabilized with an ash cover (site code 200-E-41). The stack burial trench is not marked and cannot be separately distinguished from the rest of the surface stabilized area. The site provided exhaust air ventilation for the 210-C cells and process vessels. The stack provided exhaust air ventilation for the 201-C cells and process vessels. Forty fiber glass filters were located in an underground concrete cell. An array of HEPA filters was contained in another below-grade enclosure. Prior to demolishing the stack, shielded borehole gamma energy analysis (GEA) equipment was lowered into the stack from the top to a depth of 59.7 meters (196 feet). Due to high background levels, only cesium-137 and strontium-90 were measured. A maximum of 0.137 microcuries per cm² of cesium and 8.70 microcuries per cm² of strontium were estimated at the stack base (196 foot level). A previous radiological survey found the stack base to have a dose rate of 8.5 Rad per hour. The majority of the contamination was found below the 45.7 m (150 ft) level.

Related Site Structure: The site is associated with 201-C and 200-E-41.**Site Posting:** Not Specified**Release Mechanism:** Burial Ground**Release Type:** Solid**Dimensions (estimated):**

Site Length:	61.0 m (200.0 ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	7.0 m (24.0 ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	427.0 m ² (4800.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Cs-137, Sr-90, estimated 100 Ci of Pu and 600 Ci of beta contamination
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$730,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600 OCL

No Image Available

Site Name: 600 OCL, 600 Area Original Central Landfill, Original CLF**Site Type:** Sanitary Landfill**Current OU:** 200-MG-1**Facility:** NRDWL/BC Control Area**Former OU:** 200-SW-1**Waste Site Description:**

This site is a backfilled trench that is posted "Underground Radioactive Material". The site received miscellaneous trash and debris from the Hanford site. This site contains general office wastes, some glass, electrical wastes, and minimal metal wastes. The site has been backfilled to grade. The unit was open for approximately nine months. Its poor location (within proximity to the road) allowed trash to blow across the road in times of high wind, creating a traffic hazard. On June 5, 1988, a test pit was dug to try to locate the burial trench. A special radiological survey found 1,500 cpm beta gamma in the test pit. After the discovery of radioactive contamination, the excavation was discontinued. This discovery resulted in the trench being posted as "Underground Radioactive Material."

Related Site Structure: None**Site Posting:** URM**Release Mechanism:** Dumping Area**Release Type:** Solid**Dimensions (estimated):****Site Length:** 91.0 m (300.0 ft)**Site Width:** 15.0 m (50.0 ft)**Site Area:** 1365.0 m² (15000.0 ft²)**Site Depth:** 4.6 m (15.0 ft)**Cover Thickness:** 0 m (0 ft)**Potential Contaminants:**

	Type	Constituents
Radiological	X	1500 c/m beta gamma in test pit on June 5, 1988
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,383,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-218

No Image Available

Site Name: 600-218, H-61-H Anti-Aircraft Artillery Site Dumping Area**Site Type:** Dumping Area**Facility:** W. 200 W Area**Current OU:** 200-MG-1**Former OU:** 200-SW-1**Waste Site Description:**

The dumping area consists of demolition debris consisting of wood, pipe, barbed wire, metal fence posts, empty oil cans, empty paint cans, food cans, and sheet metal. The dumping area measures 20 m by 74 m (67 ft by 243 ft). [It] received miscellaneous construction debris from the Anti-Aircraft site.

Related Site Structure: This dumping area is related to the Anti-Aircraft site 600-216.**Site Posting:** Not Specified**Release Mechanism:** Dumping Area**Release Type:** Solid and Liquid (?)**Dimensions (estimated):****Site Length:** 74.0 m (243.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 20.4 m (67.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 1511.2 m² (16281.8 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Oil and paint, misc. trash and construction debris

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$202,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-220



Site Name: 600-220, H-51 Anti-Aircraft Artillery Site Dumping Area

Site Type: Dumping Area

Current OU: 200-MG-1

Facility: S.W. 200 W Ponds Area

Former OU: 200-SW-1

Waste Site Description:

The site consists of three dumping areas. The dumps are located in three general areas. One has T-posts around it and it contains metal, transite, fluorescent light bulbs, metal ducting, fiberglass insulation, an unknown white granular substance, pipe, and wire. The July 2000 fire burned off all flammable material, such as wood, that had remained at the site. The second area is mostly wood; little remains now. The third area is a relatively large area consisting of empty cans and empty food, oil, paint and bleach bottles. Several wooden ammunition boxes and cardboard canisters were observed before 2000, but are now gone. The area appears to have been scraped with a bulldozer. Several waste materials are partially buried. The permanent structures included barracks, latrines, mess halls, craft shops, pump houses, motor pools, and radar facilities. Each site typically had a small arms range, water storage cistern, sanitary, and sewage disposal facilities. Pathways, sidewalks, roadways, and parking lots connected the structures. The anti-aircraft sites were phased out of service in late 1957 and early 1958, and their structures and equipment were declared excess.

Related Site Structure: This site is associated with 600-53, the site building foundations, and 6607-3, the site's septic system.

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid

Dimensions (estimated):

Site Length: 200.0 m (647.0 ft)

Site Width: 166.0 m (545.0 ft)

Site Area: 33200.0 m² (352615.0 ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Asbestos, misc. trash and construction debris

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$638,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-222**Site Name:** 600-222, H-60 Gun Site**Site Type:** Military Compound**Current OU:** 200-MG-1**Facility:** W. 200 W Area**Former OU:** 200-SW-1**Waste Site Description:**

There is very little evidence of the former military gun site. A few trees, walkways, roads and an "underground telephone" warning sign are present (a second "underground telephone" sign burned in the July 2000 fire). After the July 2000 fire, other material left at the site has become visible, including pieces of ceramic pipe, a dumpsite with two oil filters, coat hangers, and a few small pieces of transite siding. South of the access road are several small piles of decayed batteries or fuses. A site visit on 3-3-98 identified two 1-1/2 in. diameter pipes protruding from a block of concrete. South of the site, a line of barbed wire stakes was also standing in 1998. In 2001, neither the concrete nor the line of stakes were present. Further south, next to a large granite boulder, is a pile of tent stakes. In 1998, "the deteriorated remains of what appears to be batteries or ammunition" were reported and mapped.

Related Site Structure: Unlike the other anti-aircraft gun sites, no septic system, concrete foundations, or large dumping area have been found for this site.

Site Posting: Underground Telephone warning sign

Release Mechanism: Abandoned Military Site

Release Type: Solid and Liquid (?)

Dimensions (estimated):

Site Length: 212.0 m (695.0 ft)

Site Width: 167.0 m (548.0 ft)

Site Area: 35404.0 m² (380860.0 ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Battery and oil wastes

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$533,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-226



No Image Available

Site Name: 600-226, Gun Site H-42 Dumping Area
Site Type: Dumping Area
Current OU: 200-MG-1

Facility: S. NRDWL/BC Control Area
Former OU: 200-SW-1

Waste Site Description:

The site is an old dumping area for an anti-aircraft site. The surface of the site has scattered and decaying debris including pipe, glass, empty buckets, slightly rusted (not corroded) 55-gallon drum, dried paint, cans, transite, broken concrete, and dry cell batteries. Wood had formerly been present, but was burned in the July 2000 fire. Typically, Camp Hanford's anti-aircraft artillery sites were each roughly 20 acres in size and contained any number of buildings (typically around 20), various utility distribution systems, roads, and sidewalks. Each site consisted of emplacements protected by revetments made of sandbags and wood planking, wooden structures, prefabricated metal buildings, and, later, permanent, concrete block structures. The prefabricated buildings had aluminum walls and roofs with wooden or concrete floors set on concrete pier blocks and were the most commonly constructed. The permanent structures included barracks, latrines, mess halls, craft shops, pump houses, motor pools, and radar facilities. Each site typically had a small arms range, water storage cistern, sanitary, and sewage disposal facilities. Pathways, sidewalks, roadways, and parking lots connected the structures.

Related Site Structure: This is a dumping area for 600-49, the H-42 Gun Site Building Foundation and Ammunition Storage location. The septic system is site 6607-2. More debris is documented in site code 600-281.

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)
Site Width: Irregular m (Irregular ft)
Site Area: Unknown m² (Unknown ft²)

Site Depth: Unknown m (Unknown ft)
Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Misc. construction debris

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$131,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-228

No Image Available

**Site Name:** 600-228, H-40 Gun Site Dumping Area**Site Type:** Dumping Area**Current OU:** 200-MG-1**Facility:** NRDWL/BC Control Area**Former OU:** 200-SW-1**Waste Site Description:**

The dumping areas are located in pits in the southern portion of the site. The pit located west of the main site measures about 12 m (40 ft) in diameter and contains sheetrock, metal, transite, glass and empty paint cans. Two small pits located in the south of the site are each about 4 m (15 ft) in diameter. One pit is empty and the other contains steel fence posts and barbed wire. The largest pit is to the south-southeast, and on the topographic slope facing to the south. It contains a large quantity of metal objects, as well as some transite and glass. The July 2000 fire burned much of the wood debris in this pit and the western pit. These pits received debris from several years of military operation of the anti-aircraft site. Typically, Camp Hanford's anti-aircraft artillery sites were each roughly 20 acres in size and contained any number of buildings (typically around 20), various utility distribution systems, roads, and sidewalks. Each site consisted of emplacements protected by revetments made of sandbags and wood planking, wooden structures, prefabricated metal buildings, and, later, permanent, concrete block structures. The prefabricated buildings had aluminum walls and roofs with wooden or concrete floors set on concrete pier blocks and were the most commonly constructed. The permanent structures included barracks, latrines, mess halls, craft shops, pump houses, motor pools, and radar facilities. Each site typically had a small arms range, water storage cistern, sanitary, and sewage disposal facilities. Pathways, sidewalks, roadways, and parking lots connected the structures.

Related Site Structure: This site is related to 600-227 (the building foundations), and 6607-1 (the septic tank).**Site Posting:** Not Specified**Release Mechanism:** Dumping Area**Release Type:** Solid and Liquid (?)**Dimensions (estimated):****Site Length:** 12.0 m (39.4 ft)**Site Width:** 12.0 m (39.4 ft)**Site Area:** 144.0 m² (1552.4 ft²)**Site Depth:** Unknown m (Unknown ft)**Cover Thickness:** 0 m (0 ft)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Misc. construction debris, possible lead paint

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$122,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-262



Site Name: 600-262, West Lake Test Crib

Site Type: Crib

Current OU: 200-MG-1

Facility: 200 E Ponds Area

Former OU: 200-UR-1

Waste Site Description:

The site includes a test crib and twenty one monitoring wells. The entire test site area is surrounded by metal fence posts. No warning signs or postings are visible at the site. The test crib has a wooden frame and a wooden lid, which has been set aside. Two approximately 2.5 cm (1 in.) diameter pipes are visible entering the crib and appear to enter the soil. Although only 7 wells are mentioned in HW-61476, 12 others are identified in HW-71573. Twenty one 5.1 cm (2 in) diameter metal pipes or monitoring wells are currently visible surrounding the crib. Some of the wells are approximately 0.9 m (3 ft) tall and are galvanized while others are only approximately 0.3 m (1 ft) tall and are not galvanized. In three out of the four wells examined, water was visible. Also visible at the site were wood debris, metal debris, wire, empty glass bottles, a wooden box and excess 5.1 cm (2 in.) pipe. The ground surface is gently rolling. Northeast of the test crib is a depressed area approximately the same size as the crib. The soil is sandy and no discoloration is apparent. Vegetation at the site is composed primarily of grasses but includes a few small shrubs. A model test crib was built in 1959 for a field experiment for predicting crib capacity and crib waste retention. The field experiment was designed to check the validity of laboratory results and allow the scientists to observe the behavior of solutions put into the ground in a field setting. The location near West Lake was chosen because the depth to groundwater was only 3.7 m (12 ft). In May 1959, 34,200 L (9,000 gal) of calcium nitrate solution spiked with strontium-85 was placed into the 0.36 m² (4 ft²) crib. According to HW-61476, seven 5 cm (2 in.) diameter wells were placed around the crib to monitor the infiltration of the solution through the soil. HW-61476 refers to them as wells "A" through "G." All the wells were drilled vertically except for well "F", located 1.2 m (4 ft) east of the crib. Well "F" was drilled at an angle that intersected the water table below the center of the crib. For the first week of the experiment, samples were collected from the wells every four hours. Nitrate was detected after 4256 L (1120 gal) of solution had been added to the crib. Well "F" detected strontium-85 after 16,900 L (4450 gal) of solution had been added to the crib. Well "E", located (4 ft) northeast of the crib, detected strontium-85 after 21,660 L (5700 gal) of solution had been added to the crib. The total infiltration of strontium-85 had not reached completion by the time the experiment was terminated. HW-71573, written in 1962, describes the test crib being used again for a similar experiment. Fifteen additional monitoring wells were placed in the area. The infiltrate solution was also calcium nitrate spiked with Strontium-85.

Related Site Structure: None

Site Posting: None

Release Mechanism: Test Site

Release Type: Liquid

Dimensions (estimated):

Site Length:	0.6 m (2.0 ft)	Site Depth:	0.6 m (2.0 ft)
Site Width:	0.6 m (2.0 ft)	Cover Thickness:	0 m (0 ft)
Site Area:	0.4 m ² (4.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Sr-85
Nonradiological	X	Calcium nitrate

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$180,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

600-275

No Image Available

Site Name: 600-275, 218-W-14, Igloo Site, Army Ammo Site, Regulated Storage Area**Site Type:** Foundation**Facility:** W. 200 W Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The bunkers, guard house and fence have been removed. Currently the access roads are visible with bladed areas where the seven bunkers had been located. Rectangular mounds of soil, each approximately 1 m (3 ft) high, remain where the igloo structures had been located. The seven army igloos were originally used for ammunition storage and Nike missile parts. Drilling equipment for the Basalt Waste Isolation Project was also stored in the igloos. Later, radioactive material (plutonium scrap waste) was stored in the igloos. A Hanford employee recalls doing a routine surveillance of the plutonium scrap that was stored in barrels of carbon tetrachloride. He discovered a spill had occurred in the igloo located in the northeast corner of the site. Since the floors of the igloos were sloped to from center outward to collection points, no contamination reached the outside of the igloo. The contamination was cleaned up when it was found. It is estimated to have occurred sometime in the 1960's.

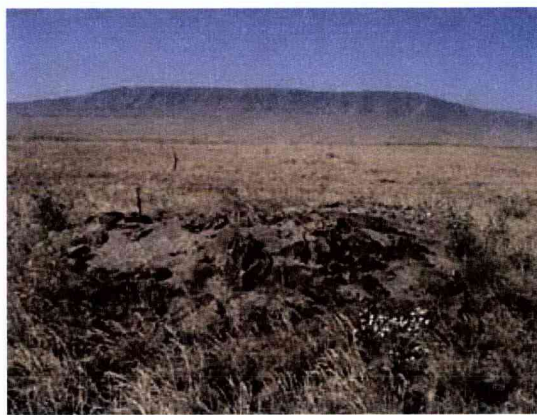
Related Site Structure: None**Site Posting:** Not Specified**Release Mechanism:** Leak/ Spill**Release Type:** Solid and Liquid**Dimensions (estimated):****Site Length:** 624.8 m (2050.1 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 495.3 m (1625.1 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 309483.3 m² (3331575.1 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Plutonium scrap
Nonradiological	X	Carbon tetrachloride

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$589,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

600-281

Site Name: 600-281, Scattered Debris South of Army Loop Road

Site Type: Dumping Area

Current OU: 200-MG-1

Facility: S. NRDWL/BC Control Area

Former OU: 200-SW-1

Waste Site Description:

After the range fire in June 2000, additional areas of debris were visible. Five areas of concentrated debris were identified. The debris includes material suspected to be asbestos, charred wood, glass, metal pipes, gauges and green metal containers. A June 2002 site walkdown was conducted to document scattered debris. Five waste areas west of the powerline road were identified on GPS job #529. The five waste areas designated during GPS job 529 contain the following debris: Area 1 - scattered debris. Area 2 - Broken burlap bags in mound of dirt, metal straps, dried paint, military issue dishes, broken concrete, rusted 55-gallon empty drum. Area 3 - Lightly rusted (not corroded) 55-gallon drum, an air hole at one end is open and drum appears empty except solid sound in middle. Area 4 - Broken toilet, small military issue batteries, mound of transite and homemade dumbbell. Area 5 - east of powerline contains two mounds of transite. Three compressed gas cylinders were found adjacent to well 699-16-51.

Related Site Structure: The debris is associated with site code 600-49.

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid

Dimensions (estimated):

Site Length: Unknown m (Unknown ft)

Site Width: Unknown m (Unknown ft)

Site Area: Unknown m² (Unknown ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Demolition and inert waste, asbestos

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$168,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-36



Site Name: 600-36, Ethel Railroad Siding (Burn Pit)

Site Type: Burn Pit

Current OU: 200-MG-1

Facility: 200 E Ponds Area

Former OU: 200-SW-1

Waste Site Description:

The site is an area of scattered debris and some evidence of burning, adjacent to the Ethel railroad siding. In 1993 this site was submitted as a suspect waste site, evidenced by burned areas and oil spills. It consisted of an area measuring approximately 91.4 m by 18.3 m (300 ft by 60 ft), northwest of the 251 Substation, near the "Ethel" railroad siding. In October 1997, a site investigative team mapped and photographed several areas of debris. The debris consisted of metal canisters of bolts and nuts, batteries, abandoned rails, metal debris and an area with evidence of an oil spill. A site walkdown in 4/2/02, however, indicated that most of the debris shown in the 1997 photographs could not be located. Only the batteries and oil stained soil were observed.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid and Liquid (?)

Dimensions (estimated):

Site Length: 18.0 m (60.0 ft)

Site Width: 91.4 m (300.0 ft)

Site Area: 1645.9 m² (18000.9 ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$202,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-37

Site Name: 600-37, Browns Wells, Johnson's Wells

Site Type: French Drain

Current OU: 200-MG-1

Facility: ERDF Area

Former OU: 200-UR-1

Waste Site Description:

The unit consists of four steel tanks and four french drains. Three of the tanks are approximately 3 m (10 ft) long by 1.5 m (5 ft) in diameter, and the fourth tank is 6.7 m (22 ft) long by 1.5 m (5 ft) in diameter. The tanks had been resting on railroad ties approximately 1.2 m (4 ft) above ground. A range fire burned through the area in June 2000. The southern-most tank was untouched by the fire and the tank supports remain intact. The wooden support structures under the other three tanks were burned and the tanks are now sitting on the ground. The french drains are double encased with pipe used to center the inner casing within the outer casing. Three of the french drains have a inside diameter of 38 cm (15 in.) and are approximately 4.9 m (16 ft) deep. The fourth french drain has a much larger diameter. The french drains were unaffected by the fire in June 2000. There is a dirt road that runs through the unit that appears to be surfaced with used oil. The four steel tanks appear to be of military origin. The configuration of the drains and tanks appear appropriate for an infiltration test. Raw water was assumed to have been disposed of in the french drains, however sample testing should be conducted in the unit.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Unknown/ Testing

Release Type: Liquid

Dimensions (estimated):

Site Length:	3.0 m (10.0 ft)	Site Depth:	4.9 m (16.0 ft)
Site Width:	2.0 m (7.0 ft)	Cover Thickness:	0 m (0 ft)
Site Area:	6.1 m ² (70.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	Unknown	Unknown
Nonradiological	Unknown	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$180,000

References:

WIDS General Summary Report, DOE/RL-2004-39

600-38

No Image Available

No Image Available

Site Name: 600-38, Railroad Siding Susie, 600-25, Susie Junction**Site Type:** Dumping Area**Current OU:** 200-MG-1**Facility:** W. 200 E Ponds Area**Former OU:** 200-SW-1**Waste Site Description:**

The site is at the "Susie" railroad junction. The northeast corner of the junction has an excavated area that may have contained a siding for decontamination of railroad cars. In an 1996 interview, Ray Johnson said that the site had been "picked up" by unknown parties, but most of the railroad maintenance equipment was left at the site. In 1989 Roos reported that in a large pit were 4 to 5 drums, one had leaked some oily liquid, another was labeled kerosene. On the side of the pit near the tracks was a small trash pile containing rubber boots, brooms, brushes, chisels mounted on poles, hoses, and various trash. These objects appeared to be associated with a cleaning/decontamination process, however, the small quantity would suggest that it was single event, or more careful disposal procedures were generally used. On the south side of the tracks, in the same general area, was evidence of a railroad siding. A small pile of ashes was present containing nails, cans, and some other ordinary looking trash. There was some fluffy white fibrous material on the ground that looked like insulation. It was beside the ash pile, and had ashes on it. It may have survived a fire hot enough to shatter cobbles in the area, suggesting that it may be some form of asbestos.

Related Site Structure: Railroad lines are associated with this unit.**Site Posting:** Not Specified**Release Mechanism:** Dumping Area**Release Type:** Solid and Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 338067.9 m² (3638933.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste, asbestos, petroleum hydrocarbon

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$446,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-40



Site Name: 600-40, West of West Lake Dumping Area
Site Type: Dumping Area
Current OU: 200-MG-1

Facility: 200 E Ponds Area
Former OU: 200-SW-1

Waste Site Description:

The unit is an old dumping area. The debris is mostly consolidated in one of two locations, either along the road or on the hillside. The site along the road is approximately 364 m² (3918 ft²) in area. The site on the hillside is 123 m² (1324 ft²) in area. The area listed in the dimensions represents the total area of both dumping areas. Additionally, a few pieces of scattered debris can be found on the hillside. The waste along the dirt road includes chunks and slabs of concrete, lumber, miscellaneous metal debris, rusted cans approximately 30.5 cm in diameter and 40.6 cm tall (12 in. in diameter and 16 in. tall), and what appears to be roofing (black, tarry sheets with gravel) materials. On the hillside are 2 small wooden structures approximately 1.8 m by 1.8 m by 1.2 m (6 ft by 6 ft by 4 ft), a pile of wooden posts with each post approximately 20.3 cm in diameter and 1.8 m long (8 in. in diameter and 6 ft long), other wood debris, what appears to be a wheelbarrow, and 2 large rusted metal cans approximately 20.3 cm by 20.3 cm by 35.6 cm tall (8 in. by 8 in. by 14 in. tall) and 30.5 cm in diameter by 35.6 cm tall (12 in. in diameter by 14 in. tall).

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid

Dimensions (estimated):

Site Length:	Irregular m (Irregular ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0 m (0 ft)
Site Area:	487.0 m ² (5242.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$168,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-51**Site Name:** 600-51, Chemical Dump, Pile of White Powder**Site Type:** Dumping Area**Current OU:** 200-MG-1**Facility:** N. 200 E Ponds Area**Former OU:** 200-SW-1**Waste Site Description:**

The site is an elliptical area with little or no vegetation. This site consisted of a pile of white powdered chemical substance. Sampling determined the powder was a sodium compound. During a site visit on October 27, 1999, it was observed that the pile of white powder was gone. There does not appear to be any signs of soil discoloration or traces of the white powder. It is unknown how long the pile of white powder has been gone or whether the lack of vegetation is temporary or long term. The surrounding area was covered with grasses, tumbleweeds and tumble mustard. The material was located next to the 1901-Z Building. This building is a concrete block structure housing valves for the export water lines.

Related Site Structure: None**Site Posting:** Not Specified**Release Mechanism:** Dumping Area**Release Type:** Solid**Dimensions (estimated):****Site Length:** 1.0 m (3.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 1.5 m (5.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 1.5 m² (15.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$131,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-65



No Image Available

Site Name: 600-65, 607 Batch Plant Drum Site**Site Type:** Dumping Area**Current OU:** 200-MG-1**Facility:** N. ERDF Area**Former OU:** 200-SW-1**Waste Site Description:**

In 1995, the site had two crushed and flattened 55-gal drums, one oil filter housing (approximately 2 qts [1.9 L]), a metal cable, one large concrete block (0.5 yds³ [0.4 m³]), and indications of possible petroleum disposal. In 2001, the items noted above could not be located, and the area is possibly being used for fill material.

Related Site Structure: This Site is associated with the 607 Batch Plant Gravel Pit.**Site Posting:** Not Specified**Release Mechanism:** Dumping Area**Release Type:** Solid and Liquid (?)**Dimensions (estimated):****Site Length:** 3.0 m (10.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 3.0 m (10.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 9.1 m² (100.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, petroleum hydrocarbons

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$132,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-66



No Image Available

Site Name: 600-66, 607 Batch Plant Orphan Drums**Site Type:** Dumping Area**Current OU:** 200-MG-1**Facility:** ERDF Area**Former OU:** 200-SW-1**Waste Site Description:**

The site consists of one rusted 55-gallon (208 L) drum laying on the ground surface on its side. No label or hazardous substance are evident. In 1995 a site visit found two rusted drums, contents unknown. Notes from the logbook indicate one drum was a rusted 55-gal and one a 5-gal drum. Also noted from the site walkdown was that one drum was labeled "Cutting Oil", but not specifically which one. A subsequent field visit in 1997 identified only one 55 gal drum and some metal sheeting. No mention of labels. On 3/26/02 and 11/04/03, only one unlabeled 55 gal drum was observed during site walk downs by Curt Clement.

Related Site Structure: The abandoned drum may be associated with the Batch Plant.**Site Posting:** None**Release Mechanism:** Dumping Area**Release Type:** Solid and Liquid (?)**Dimensions (estimated):****Site Length:** 1.5 m (5.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 1.5 m (5.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 2.3 m² (25.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Unknown liquids

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$131,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

600-70

Site Name: 600-70, Solid Waste Management Unit (SWMU) #2 - Miscellaneous Solid Waste

Site Type: Dumping Area

Current OU: 200-MG-1

Facility: REDOX Area

Former OU: 200-SW-1

Waste Site Description:

The site is located on relatively flat terrain except for natural depressions and evidence that trenches may have been dug. Large amounts of construction materials such as concrete, wood, metal, cans, barrels and transite are visible. Numerous areas of burned materials were also observed. In early 1950, the United States Government began construction of the REDOX plant in the south portion of the 200-West Area. A construction storage, heavy equipment vehicle parking and maintenance, concrete truck washdown area, and a waste disposal area associated with the REDOX plant construction were at this site. Likely waste disposal during the 2-year construction period included trash burning (evident from photographs provided by DOE), acid "pickling" (metal preparation) wastes, cooling water from heliarc welding operations (into a french drain), and sandblasting wastes. Other possible contaminants disposed of in this area include gasoline, oil, other lubricants, anti-freeze, and other vehicle-related fluids. The exact locations of the french drain and other disposal units are unknown.

Related Site Structure: None

Site Posting: Not Specified

Release Mechanism: Dumping Area

Release Type: Solid and Liquid

Dimensions (estimated):

Site Length: 425.0 m (1394.0 ft)

Site Width: 280.0 m (918.4 ft)

Site Area: 119000.0 m² (1280249.6 ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste, asbestos, petroleum hydrocarbon

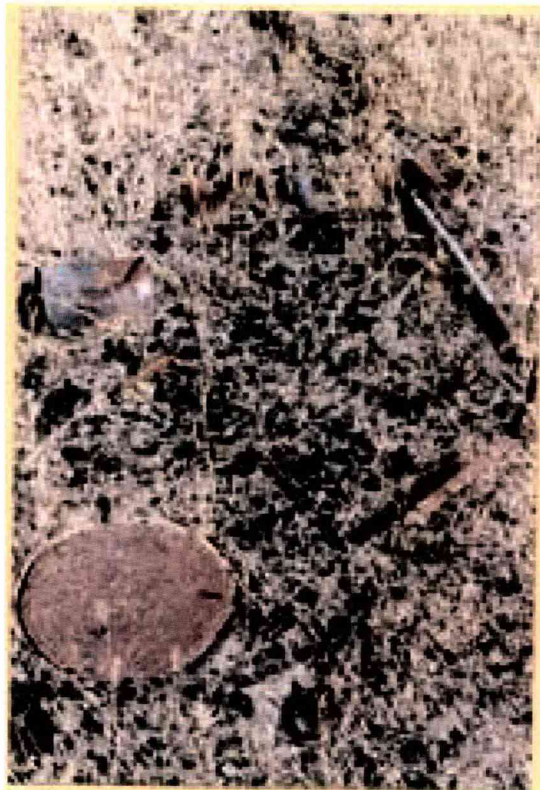
Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$347,000

References:

WIDS General Summary Report, DOE/RL-2004-60

600-71



Site Name: 600-71, 607 Batch Plant Burn Pit

Site Type: Burn Pit

Current OU: 200-MG-1

Facility: ERDF Area

Former OU: 200-SW-1

Waste Site Description:

The site consists of an area of charred ground, a piece of rusted sheet metal and small pieces of debris. In June 2004, the expansion of Gravel Pit 30 pushed soil over the northern portion of the 600-71 Burn Pit. The initial site review on 8/14/95 found charred material, wood, corrugated metal, oil cans, aerosol cans, paint cans, glass jars, paper, rope, rubber, roofing, metal pipe, and metal scattered around the site. Photos taken on the 4/1/02 site walkdown identified charred ground, wood scraps and rusted metal debris. No hazardous substances were found. This area has the appearance of being more recently burned and is located closer to the 607 Batch Plant building than the areas identified in 1995. In June 2004, the expansion of Gravel Pit 30 pushed soil over the northern portion of the 600-71 Burn Pit.

Related Site Structure: The 607 Batch Plant is adjacent to the Burn Pit.

Site Posting: Not Specified

Release Mechanism: Unknown

Release Type: Solid

Dimensions (estimated):**Site Length:** 30.0 m (100.0 ft)**Site Width:** 24.4 m (80.0 ft)**Site Area:** 731.5 m² (8000.4 ft²)**Site Depth:** Unknown m (Unknown ft)**Cover Thickness:** 0 m (0 ft)**Potential Contaminants:**

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$122,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

CTFN 2703-E

No Image Available

No Image Available

Site Name: CTFN 2703-E, 200-E Chemical Drain Field, Chemical Tile Field North of 2703-E**Site Type:** Drain/Tile field**Facility:** 200 E Admin Area**Current OU:** 200-MG-1**Former OU:** 200-LW-2**Waste Site Description:**

The waste site consists of a trench and seepage basin. As of 1994, this unit had no free standing liquids nor any sign of natural vegetative growth. The seepage basin is referred to as the 200-E Chemical Drain Field. It has not been backfilled or filled with any materials that would facilitate drainage. The drain field was designed to receive non-hazardous liquid waste from the 272-E and 2703-E Buildings. Wastewater from the 272-E Building floor drain was discharged to a process sewer line which extends to the disposal site (see 200-E-287-PL). Wastewater from two floor sumps in the 2703-E Building was discharged to the same process sewer line and combined with the 272-E Building effluent before reaching the disposal site. DOE/RL-94-24 gave the dimensions for the basin as 47m x 47m, and also gave a length of the trench as 47m.

Related Site Structure: 272-E Building and the 2703-E Building. The pipeline associated with this tile field is site code 200-E-287-PL.

Site Posting: None**Release Mechanism:** Liquid disposal**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 47.0 m (155.0 ft)**Site Depth:** 1.8 m (6.0 ft)**Site Width:** 47.0 m (155.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 2209.0 m² (24025.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$330,000**References:**

WIDS General Summary Report, DOE/RL-2006-56, DOE/RL-2005-61

OCSA



Site Name: OCSA, Old Central Shop Area, Central Shop Area

Site Type: Foundations

Current OU: 200-MG-1

Facility: 200 E Ponds Area

Former OU: 200-SW-1

Waste Site Description:

The site consists of building foundations and scattered debris. A site visit on 12-4-97 observed pieces of lumber, corrugated metal, bricks, shingles, buckets, a barrel, office furniture, and wooden tables. There are two pits containing debris and nails. During Hanford construction the central shops were established as a staging area, repair shops, and specialized fabrications area. It was a central location for construction being conducted at 200 East, 200 West, 100-B, 100-D, and 100-F Areas. It included materials storage areas for construction materials and fuel storage. All facilities in the central shops area were considered temporary construction facilities and were identified as TC-29 Buildings. The sanitary sewer system consisted of a gravity feed septic tank system open trench and open settling ponds. There were three fuel storage areas. One was associated with a gas station and had kerosene as well as diesel and gasoline in 3,000 gal storage tanks (also "white" in a 2,000 gal tank). The second was a fuel storage yard, with six 25,000 gal tanks and two 12,000 gal tanks; the drawings show this as both "Gasoline storage area" on one side and "Fuel Oil storage" on the other. The third is one 100,000 gal storage tank that was connected to a Boiler, which was likely the heat source for the area buildings.

Related Site Structure: None

Site Posting: None

Release Mechanism: Former Construction Staging Area With Fuel Tanks

Release Type: Solid and Liquid (?)

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)
Site Width: Irregular m (Irregular ft)
Site Area: 1002921.0 m² (10795351.5 ft²)

Site Depth: Unknown m (Unknown ft)
Cover Thickness: 0 m (0 ft)

Potential Contaminants:

	Type	Constituents
Radiological	None	None
Nonradiological	X	Miscellaneous debris, demolition and inert waste, petroleum hydrocarbons

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$721,000

References:

WIDS General Summary Report, DOE/RL-2004-60

UPR-200-E-10

No Image Available

No Image Available

Site Name: UPR-200-E-10, Contaminated Purex Railroad Spur, UN-200-E-10**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A contamination spread occurred along the railroad tracks while transporting tube bundles from PUREX to the burial ground. The release is not separately marked or posted. The railroad cut was decontaminated by excavation and flushing. All smearable contamination was removed from the railroad tunnel and fixed contamination was reduced to a maximum of 25 mR/hr; the major portion of the affected tunnel was repainted. The canyon was restored to its former status. The craneway was restored to its former status with the exception of spotty contamination of 1.6 Rad/hr in the extreme east end of the craneway. The bulk of high-level contamination was removed from the crane. Most of the railroad right-of-way was decontaminated by flushing with water using a specially equipped tank car. In September 1957, contamination ranging from 5 to 20 Rad/hr was spread in the craneway, canyon, railroad tunnel, and on the remote crane and railroad right-of-way during transport of two failed waste concentrator tube bundles. An unplanned release occurred while transporting tube bundles. Contamination was spread in the craneway, canyon, railroad tunnel and on the remote crane.

Related Site Structure: The site is associated with 200-E-44 (PUREX Railroad Cut).**Site Posting:** Not separately marked or posted from other postings on the railroad tracks**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Contamination ranging from 5 to 20 Rads/hr in September 1957
Nonradiological	Unknown	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$4,972,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-101

No Image Available

No Image Available

Site Name: UPR-200-E-101, UN-216-E-30, UN-216-E-101, UN-200-E-101, Radioactive Spill Near 242-B Evaporator

Site Type: Unplanned Release

Facility: B Farm Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

The site, adjacent to the B Tank Farm perimeter fence, is currently a posted as a URM area. Surface contamination was identified between the 241-B Tank Farm fence and the 242-B Evaporator building. It was assigned the UPR Site Number UN-216-E-30 in August 1985. The area adjacent to the tank farm fence is prone to contamination migrating outside the tank farm. In the past, CA postings periodically extended beyond the chain link fence, but the postings were removed as the contamination was removed. In 2000 and 2001, a large zone extension covered the area previously stabilized. Windblown particulates from the tank farm or spills from the 242-B Evaporator may have been the cause of the contamination, but an exact cause for this area of contamination has not been determined. A routine radiological survey done in September 1986 found tumbleweeds growing at the site that were reading 1,000 cpm beta-gamma.

Related Site Structure: The site is associated with 241-B Tank Farm and 200-E-120.

Site Posting: URM

Release Mechanism: Windblown Particulate/ Vegetation

Release Type: Solid

Dimensions (estimated):

Site Length:	25.6 m (84.0 ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	12.2 m (40.0 ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	312.2 m ² (3360.3 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Tumbleweeds reading 1,000 cpm beta-gamma in September 1986
Nonradiological	None	None

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$241,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-11**No Image Available****Site Name:** UPR-200-E-11, Railroad Track Contamination Spread, UN-200-E-11**Site Type:** Unplanned Release**Facility:** Solid Waste Area/ B Plant Area/ 200 E Admin Area/ Semi-Works Area/ PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

This unplanned release is no longer marked or posted. Portions of the TC-4 Spur (a.k.a. UPR-200-E-88) and a section of track south of the 218-E-5 Burial Ground (UPR-200-E-95) have been covered with dirt and posted with URM signs. There have been contaminated spots found on the railroad track extending from PUREX to the 218-E-5 Burial Ground at various times when the tracks were actively being used to transport material into and out of the PUREX facility. The track extending from the PUREX tunnel entrance to the western PUREX exclusion area fence has been given a separate WIDS site code (200-E-44). The railcar storage area at the north end of the "TC" spur is WIDS site code 200-E-43. This 1957 unplanned release effected the entire length of the railroad track. No exact date is recorded, however UPR-200-E-12 is documented as occurring on November 15, 1957. The events are very similar and could be a duplicated of this event. In 1957, fission product contamination spots dripped along the railroad track extending from PUREX to the 218-E-5 Burial Ground. Contaminated tracks sections included the track from the PUREX tunnel entrance to the west exclusion area fence, the spur into the 218-E-5 Burial Ground, and the "TC" spur. Specific release details are unknown. Some burial casks were shielded with water that was removed before placing the material into the burial ground. Sometimes railcars were washed down to remove loose contamination before transporting the load to the solid waste burial ground.

Related Site Structure: The site is associated with UPR-200-E-11, UPR-200-E-88, UPR-200-E-95, 200-E-43 and 200-E-44.

Site Posting: None; URM (portions of the TC spur and sections of track south of burial grounds)

Release Mechanism: Leak/ Spill

Release Type: Liquid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)

Site Depth: Unknown m (Unknown ft)

Site Width: Irregular m (Irregular ft)

Cover Thickness: 0.3-0.6 m (1-2 ft)

Site Area: 11473.3 m² (123497.7 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Fission product contamination spots
Nonradiological	None	None

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$4,972,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-112

No Image Available

No Image Available

Site Name: UPR-200-E-112, UN-200-E-112, Contaminated Railroad Track from B-Plant to the Burial Ground**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

UPR-200-E-112 occurred on February 12, 1979. The contaminated section of track and the Atlantic Avenue crossing were cleaned by noon, February 12, 1979. During a canyon equipment burial transfer, some contaminated liquid spilled out of a cesium ion exchange column that was being loaded into a burial box atop a railcar. The liquid spilled onto the tracks inside the B Plant railroad tunnel and was carried outside by one wheels of the railroad car, contaminating the track from B Plant to the east boundary of the burial ground. Contamination levels ranged from 40,000 cpm to 80,000 cpm. Approximately 15 m (50 ft) of track that crossed Atlanta Ave. was decontaminated immediately. Occurrence Report 79-24 also recommends an effort to continue to clean the contaminated track.

Related Site Structure: UPR-200-E-112 was associated with the 221-B Building and the B Plant Aggregate Area Railroad Cut and Tunnel.

Site Posting: Not Specified**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 15.2 m (50.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 6354.8 m² (68403.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	40,000-80,000 cpm detected in 1979
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,444,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-12

No Image Available

No Image Available

Site Name: UPR-200-E-12, Contaminated Purex Railroad Spur, UN-200-E-12**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

This unplanned release is no longer marked or posted. Portions of the TC-4 Spur (a.k.a. UPR-200-E-88) and a section of track south of the 218-E-5 Burial Ground (UPR-200-E-95) have been covered with dirt and posted with URM signs. Contamination occurred on the PUREX railroad bed and right-of-way to the Burial Ground, both inside and outside the PUREX exclusion fence. The contamination inside the PUREX fence is considered part of the PUREX Railroad Cut, site code 200-E-44. No exact date is recorded for UPR-200-E-11, that also occurred in 1957. The release descriptions are very similar and could be a duplicate of the same event. On 11/15/57, a burial box containing failed process jumpers dripped contaminated liquid while in transit to the burial ground. This resulted in spotty contamination of 40 to 1,700 mR/hr to the railroad roadbed. Contamination also spread to the canyon deck, tunnel, and tunnel cut. Some burial casks were shielded with water that was removed before placing the material into the burial ground. Sometimes railcars were washed down to remove loose contamination before transporting the load to the burial ground.

Related Site Structure: This site is associated with UPR-200-E-11, UPR-200-E-88, 200-E-43 and 200-E-44.**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	40-1700 mR/hr; dose rate on burial box equal to 450 mR/hr at 150 ft in November 15, 1957
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$4,972,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-143

No Image Available

No Image Available

Site Name: UPR-200-E-143, Contamination Adjacent to 244-A Lift Station, UN-216-E-43**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

Various radiological postings exist in this vicinity that are associated with the 244-A Lift Station and 241-C Tank Farm contamination migration. A WIDS sign has been placed at the approximate location of the release. The same area is known to have been contaminated with animal feces in 1985 (see UPR-200-E-100). Additional radiological surveys and decontamination attempts changed the size and shape of the posted contaminated area several times. In October 1990, radiologically contaminated rabbit feces, with a maximum dose of 900 mRem/hr, was found south of the 244-A Lift Station and west of the 216-A-40 Basin. An investigation was initiated to identify the contaminating source. The same area is known to have been contaminated with animal feces in 1985 (see UPR-200-E-100). Additional radiological surveys and decontamination attempts changed the size and shape of the posted contaminated area several times.

Related Site Structure: This release is associated with the 244-A Lift Station, 200-E Powerhouse Ditch and UPR-200-E-100.

Site Posting: The release is not separately marked or posted. Various radiological postings exist in the vicinity.

Release Mechanism: Windblown Particulate/ Biological Intrusion

Release Type: Solid

Dimensions (estimated):

Site Length:	Unknown m (Unknown ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Unknown m (Unknown ft)	Cover Thickness:	0 m (0 ft)
Site Area:	4645.2 m ² (50000.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Rad survey readings of 900 mR/hr in October 1990. Analytical results detected Cs-137.
Nonradiological	None	None

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$310,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-2

No Image Available

No Image Available

Site Name: UPR-200-E-2, UN-200-E-2, Spotty Contamination Around the B and T Plant Stacks**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

This unplanned release is not physically posted or marked. This documented contamination spread was noted in the ARH-780 and given an UPR number. ARCHO document ARH-780 discusses "Process Ventilation Particulate and Gaseous Emissions". It mentions five Hanford Works documents written in 1947 and 1948 that discuss the identification of contaminated particles around the B Plant and T Plant exhaust stacks (HW-7997 dated 11-18-1947). It discusses contamination in both 200 East and 200 West; document UN-200-E-2 emphasized the B Plant location. The ARCHO document summaries describe the investigation into the contamination source. Currently, the area around the B-Plant stack and filtration systems is delimited with a light-weight chain barricade and surface contamination signs. HW-8267 states that in addition to providing a filtration system, sections of the stacks were to be removed and inspected. If the ductwork was determined to be the source of the contamination, steps should be taken to replace the existing ductwork. HW-8438 states that the contamination source was found to be the exhaust fans. A change of equipment was made to one stack. Plant operation forces were to eliminate the conditions within 60 days (document written 1/21/48). Proposed filter work was suspended in favor of replacing the electrical fans with stainless steel inlet and outlet ducts. HW-8931 (2/20/48) states that a marked decrease in particulate discharge was observed. HW-9595 (4/26/48) states that the large particle discharge has been eliminated, but smaller, mist-like particle contamination is still a problem. Smaller particles were identified over a wider area. Cell ventilation ducts are to be equipped with filters and scrubbers are to be installed in the dissolver off gas lines. A document written on 11/18/1947 states radioactive particulate matter was found within a 305 m (1,000 ft) radius around the B Plant and T Plant stacks. A study of the ground contamination found that mist-like particles were released over a larger area and that the particulate matter had magnetic properties.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Ventilation Particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 609.6 m (2000.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$207,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-20

No Image Available

No Image Available

Site Name: UPR-200-E-20, Contaminated Purex Railroad Spur, UN-200-E-20**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The site is located at the PUREX railroad right-of-way. The release is not separately marked or posted. On November 20, 1959, PUREX tube bundles in transit for burial provided some spotty ground contamination.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$4,972,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-28

No Image Available

No Image Available

Site Name: UPR-200-E-28, Contamination Release Inside the PUREX Exclusion Area, UN-200-E-28**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

This release occurred in the eastern half of the PUREX exclusion area. The exclusion area is posted as a Contamination Area. The release can not be individually distinguished within the zone. The November 30, 1961 release was reported in the Chemical Processing Department monthly report dated 12/21/61. Some documents have cited the report date instead of the release date. On November 30, 1961, a general spread of low-level contamination to the eastern half of the PUREX exclusion area occurred. Fission products escaped from a trap pit because of failures in a process vessel steam coil and in the trap pit piping.

Related Site Structure: The surface contaminated areas inside the PUREX facility fence were surface stabilized in 1999 and 2001. See WIDS site codes 200-E-103 and 200-E-107.

Site Posting: CA**Release Mechanism:** Leak/ Spill**Release Type:** Solid, Liquid, ?**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$133,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-33

No Image Available

Site Name: UPR-200-E-33, Contaminated Purex Railroad tracks, UN-200-E-33**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A contamination spread occurred on the PUREX railroad bed and right-of-way to the burial ground. The contamination was located both inside and outside the PUREX exclusion fence. The contamination inside the fence is considered part of the PUREX Railroad Cut (Waste Information Data System [WIDS] site code 200-E-44). On March 20, 1964, a leaking tube bundle burial box in transit to the burial ground contaminated a portion of the railroad right-of-way and area adjacent to the 216-A-9 Crib. The contamination spread occurred in February 1964. The February Monthly Report for 1964 (HW-81078) was issued on 3-20-64. This report states that decontamination was successful, but does not give any details of the decontamination activity.

Related Site Structure: None**Site Posting:** Not Specified**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$4,972,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-35

No Image Available

No Image Available

Site Name: UPR-200-E-35, Buried Contaminated Pipe, UN-218-E-1, 218-E-13**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-SW-2**Waste Site Description:**

The site is the location of a contaminated concrete pipe repair completed in August 1966. The site is no longer marked or posted. It is inside the PUREX exclusion fence. In 1980 a surface radiological survey did not detect any contamination so the posting was changed from Surface Contamination to URM. However, a site visit in 1991 could not identify any posting or markings for this site. This site received broken pieces of contaminated concrete from the pipe trench, which were left in the excavation hole and buried following repair to the piping at that location. The site contains less than 1 curie fission products. It was estimated to be located 107 m (350 ft) west of the PUREX badge house.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Pipeline Release**Release Type:** Solid**Dimensions (estimated):****Site Length:** 14.0 m (46.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 12.0 m (40.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 168.0 m² (1840.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Less than 1 Ci fission products reported in August 1966
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$441,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

UPR-200-E-37

No Image Available

No Image Available

Site Name: UPR-200-E-37, Contamination East of Hot Semi-Works, UN-200-E-37, UN-216-E-37**Site Type:** Unplanned Release**Facility:** Semi-Works Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

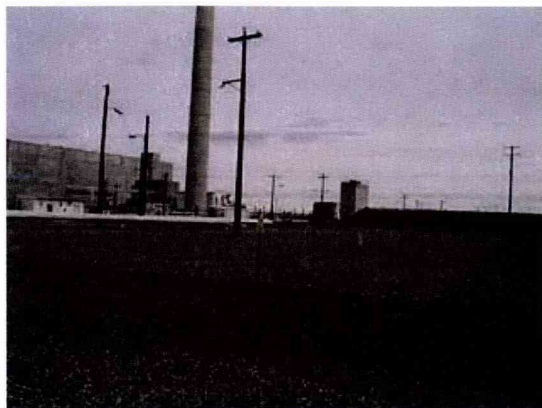
There is currently no physical evidence of the unplanned release site. It is no longer marked or posted. This UPR was documented on an Occurrence Report in 1967. However, a documented remediation of a contaminated area east of Semi-Works was done 22 years later in 08/89 and 09/89. The size of the posted contaminated area described in 1989 is considerably larger than the area described in 1967. The southern boundary of the posted contaminated zone in 1989 began near the SE corner of the 209-E Facility fence and extended E approximately 500 m (1,640 ft), 200 m (660 ft) wide. The contaminated soil in the field E and S of Semi-Works was scraped up and placed in dump trucks. The soil was disposed of in the 216-C-9 Dry Waste Burial Trench. Following the removal of the contaminated soil, a radiological survey was done with the MSCM tractor. Ninety-six soil samples were collected and analyzed: concentrations of radionuclides in all the samples were below the values listed in Table K-2 of the Westinghouse Environmental Compliance Manual WHC-CM-7-5. No contamination was identified with the MSCM tractor; thus, radiological posting were removed from the area. On July 31, 1967, a release from the Strontium Semi-Works (SSW) facility was documented on a Radiation Occurrence Report. At the time of the occurrence, a fence surrounded the facility. The original occurrence description stated that the contamination was confined to the east side of the Strontium Semi-Works, extending a length of 183 m (200 yards) and also to a dirt road outside the facility fence. The area was roped off, roads were blocked and sprinklers were set up in the contaminated areas. The blacktop roads were cleaned.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 182.9 m (600.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$452,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-39

No Image Available

Site Name: UPR-200-E-39, Release from 216-A-36B Crib Sampler (295-A), UN-200-E-39**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-PW-2**Waste Site Description:**

The release site is not separately marked or posted. It is located inside a large surface-stabilized area known as 200-E-103 that is posted as a URM area. On 2/6/68, pressurized ammonia scrubber liquid was found to be spewing from the vent filter at the 216-A-36B Crib Sampling Shack (295-A). The contaminated ammonia scrubber water erupted through the vent and filter and onto the ground around the outside of the sample shack. Approximately 60.4 m² (650 ft²) of ground and blacktop was affected. Contamination levels ranged from 20 to 450 mRAD/hr. The reported cause indicated that the export pressure was too high, resulting in back-pressure through the vent.

Related Site Structure: The site is associated with 216-A-36 Crib, the 295-A Sample Shack, and 200-E-103.**Site Posting:** URM**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):**

Site Length:	7.9 m (26.0 ft)	Site Depth:	0.9 m (3.0 ft)
Site Width:	7.9 m (26.0 ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	62.4 m ² (676.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	20-450 mRad/hr on February 6, 1968.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$137,000**References:**

WIDS General Summary Report, DOE/RL-2004-60, DOE/RL-2004-85, DOE/RL-2004-25

UPR-200-E-43

No Image Available

No Image Available

Site Name: UPR-200-E-43, Road Contamination near 241-BY Tank Farm, UN-200-E-43**Site Type:** Unplanned Release**Facility:** B Farm Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The location of this release is not marked or posted. On 1/10/72, while in transit for burial, the 102-BY Pump contaminated a section of the road from the 241-BY Tank Farm to the burial ground. Contamination readings ranged from 1,000 to 100,000 cpm.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Contamination readings were from 1,000-100,000 cpm
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$109,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-50

No Image Available

No Image Available

Site Name: UPR-200-E-50, Soil Contamination at the Overground Equipment Storage Yard, UN-200-E-50**Site Type:** Unplanned Release**Facility:** WTP/A Farm Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

In 1974, an area of ground contamination was identified that measured from 15 to 30 m (50 to 100 ft) wide and 137 m (450 ft) long south southeast of the Overground Storage Area. The release is not currently marked or posted. The location description in the original occurrence report is vague. A location sketch in RHO-CD-1048 shows an Above-ground Storage Area north of 241-C, west of the 200 East Burn Pit, southeast of 218-E-8. Photographs from 1982 show material being stored at this location. See site code 200-E-53. On 9/24/74, ground contamination was identified outside the radiation zone at the Overground Radioactive Equipment Storage Yard, north of 241-C Tank Farm. A resulting swath of ground contamination was identified with particle contamination ranging from 3,000 - 100,000 cpm, decreasing in intensity and frequency with distance from the source. Follow-up surveys of the Overground Storage Area identified a possible source to be a 6-m x 9-m (20-ft by 30-ft) area of contaminated soil inside the radiation zone. Highly contaminated pumps (250 Rad/hr) had been stored in that area with readings of 300 mrem/hr under the where pumps had been sitting. The pumps were moved to the burial ground on 4/26/74 but the soil beneath the pumps was not completely decontaminated. It was covered with plastic and secured with dirt. On 9/26/74, high winds blew the plastic cover loose, spreading contamination downwind of the Overground Storage Yard. An additional survey in the Overground Storage Yard identified two empty capsules with smearable contamination of 30,000 cpm and more soil contamination beneath the capsules reading 1.5 Rad/hr. The capsules were taken to the burial ground to avoid further contamination spreads.

Related Site Structure: This release is associated with 200-E-53.**Site Posting:** None**Release Mechanism:** Windblown Particulate/ Vegetation**Release Type:** Solid**Dimensions (estimated):**

Site Length:	137.2 m (450.0 ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	22.9 m (75.0 ft)	Cover Thickness:	0 m (0 ft)
Site Area:	3135.5 m ² (33753.3 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Rad survey readings on pumps were 250 Rad/hr with 300 mrem/hr measured on soil under pumps. Particle contamination readings ranged from 3,000 - 100,000 cpm on September 24, 1974.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$207,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-52

No Image Available

No Image Available

Site Name: UPR-200-E-52, UN-200-E-52, Contamination Spread Outside the North Side of 221-B**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

In 1998, a 3 m (10 ft) by 15.25 m (50 ft) area was posted with CA signs. On 8/1/75, soil contamination ranging to 20,000 cpm was detected under the drain of the steam pressure relief pipe discharge from the E-5-2 Strontium Concentrator, and an area about 0.91 m (3 ft) wide and 2.74 m (9 ft) high on the north side of the 221-B Building was contaminated to 100,000 cpm outdoors. Soil on the western berm adjacent to the railroad cut was also contaminated. The apparent cause was that contamination migrated from the leaking tube bundle of the recently replaced E-5-2 strontium concentrator to the pipe gallery piping. It was then forced outside by operation of the relief valve when the operating steam pressure was increased to 35 pounds per square inch while the relief valve setting remained at 32 pounds per square inch.

Related Site Structure: None**Site Posting:** CA (WIDS), also Underground radiation zone (WIDS)**Release Mechanism:** Pipeline Release**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 7.6 m (25.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 1.2 m (4.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 9.1 m² (100.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Radiological survey readings of 20000 - 100000 cpm surveyed in August 1975
Nonradiological	Unknown	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$148,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-54

No Image Available

No Image Available

Site Name: UPR-200-E-54, UN-200-E-54, Contamination Outside 225-B Doorway**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

There is a sign posted on the south wall of 225-B, next to Door 130, that reads UPR-200-E-54. There is no radiological posting around the doorway or in the soil adjacent to the concrete door pad. On 7/20/77, water used for decontaminating a manipulator seeped under an exit door of the 225-B Building spreading low-level contamination onto the concrete door pad and adjacent soil. Radiation readings on the pad were 25 mR/hr direct and 20,000 cpm smearable. While decontaminating the manipulator, the water spray wand was accidentally directed toward the corridor door by the operator. Water was forced under the door into the corridor. The water trickled down the corridor to a drain in the Service Gallery. As water passed the exit door about 1.89 L (0.5 gal) seeped under the unsealed threshold onto the pad and soil.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	25 mR/hr (direct) and 20,000 cpm smearable on July 20, 1977
Nonradiological	Unknown	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$122,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-55

No Image Available

No Image Available

Site Name: UPR-200-E-55, UN-200-E-55, Contamination Spread South of B Plant**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A single post with a sign that reads UPR-200-E-55 is currently located under an aboveground line. The area is not radiologically posted. It marks the approximate location of the release. Another note in Site Comments states that the contamination "spread south and west of 212-B." On 4/27/79, wind spread contamination from a plastic sheeting in a radiation zone near the 212-B Building to an adjacent area. The incident occurred after the K-3 east filter was changed out. During the changeout plastic was laid down for contamination control within a radiation zone. The wind whipped the contamination plastic as it was being packaged for burial. The general area was surveyed and spots of contamination ranging from 5,000 - 30,000 cpm were found outside the radiation zone.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 30.5 m (100.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 30.5 m (100.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 929.0 m² (10001.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Beta/gamma particles reading 5,000-30,000 cpm on April 27, 1979
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$86,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-62

No Image Available

Site Name: UPR-200-E-62, Transportation Spill near 200-E Burning Ground, UN-216-E-62, UN-200-E-62,**Site Type:** Unplanned Release**Facility:** Solid Waste Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

Radioactive liquid was spilled from a pressure test assembly on 3/19/82 while in transit. The release occupied an area approximately 5 cm (2 in.) wide and 30 m (100 ft) long on a hill near the 200 East Overground Storage Area. The release was cleaned up within 3 days. The site is no longer marked or posted. The location of the 200 East Area Overground Storage Area is unclear. It is assumed to be adjacent to the 200 East Burn Pit, currently known as site code 200-E-53. Although this site was Proposed to be Rejected in 2001, an Ecology review in 2004 determined more information is required to disposition this site. Additional radiation surveys and possible sampling were recommended. The site status was changed to Accepted, pending the results of the investigation. No definite time has been determined for when the information might be collected.

Related Site Structure: The release is associated with the Overground Storage Area, site code 200-E-53.**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	350 mRad/hr beta/gamma in 1982
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$86,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-E-64

No Image Available

Site Name: UPR-200-E-64, Radioactive Soil and Ant Hills, UN-200-E-64, UN-216-E-36

Site Type: Unplanned Release

Current OU: 200-MG-1

Facility: B Plant Area

Former OU: 200-PW-2

Waste Site Description:

The site is a large area posted with chain and URM Area signs. The size and shape of the posted area has changed periodically as a result of annual radiological surveys and clean up efforts. Drawing H-2-44502, sheet 22 indicates the 270-E Building was removed and the tank was capped and abandoned in the early 1960's. SK-2-56961, drawn in 1972, shows the 1 m (40 in.) riser was cut below the ground surface and covered with earth. In 1984, a small diameter pipe (approximately 2 in. diameter) was visible on the west side of the 216-B-64 Basin, near where the 270-E-1 is located. In 1985, the pipe had a dose rate of 30 mR/hr. The pipe is most likely a "Swab Riser" associated with an underground pipeline. This pipe is the apparent source of contamination and not the riser from the 270-E-1 Tank. The contamination had been transported to the surface by ants and spread with the wind. The size of the area in 1995 was approximately 8100 sq m (2 acres). The shape of the posted zone has been periodically redefined. Additional contaminated soil and ant hills were identified both north and south of 7th Street and around the 241-ER-151 Diversion Box in 9/98. The original unplanned release documentation states ants burrowed into contaminated soil that was caused by leakage from the 270-E-1 Tank and brought the contamination to the surface. Later documentation suggests the contamination source was the small diameter vertical pipe (swab riser) located west of 216-B-64 basin. The release consists of migrating radioactive speck contamination that was identified in 1984. The source was originally assumed to be the vent riser for the buried 270-E-1 Neutralization Tank.

Related Site Structure: None

Site Posting: URM

Release Mechanism: Pipeline Release/ Windblown Particulate/ Biological Intrusion

Release Type: Liquid

Dimensions (estimated):

Site Length:	Irregular m (Irregular ft)	Site Depth:	0.0 m (0.0 ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0.6 m (2 ft)
Site Area:	8100.0 m ² (87187.6 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Sr-90, Cs-137; 60,000 cpm on soil and ant hills in May 1987; 30 mRad/hr found on a pipe in 1985.
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$851,000**References:**

WIDS General Summary Report, DOE/RL-2000-60, DOE/RL-2004-85, DOE/RL-2004-25

UPR-200-E-66

No Image Available

No Image Available

Site Name: UPR-200-E-66, 216-A-42 Basin Contamination Release, UN-216-E-66, UN-200-E-66**Site Type:** Unplanned Release**Facility:** PUREX Area**Current OU:** 200-MG-1**Former OU:** 200-CW-1**Waste Site Description:**

The release is not separately marked or posted. The 216-A-42 Basin had been surrounded by a wire fence and posted with Soil Contamination signs. In 2001, the fence was removed and the area was surface stabilized. It was covered with clean backfill and downposted to URM. The release site is located within the URM area. At the time the contamination release was identified, a project to construct a cover over the basin was in progress. A 11/7/84 radiation survey identified contamination both inside and outside of the area posted as a radiation zone around the perimeter of the 216-A-42 Basin. Contaminated liquid in the basin had evaporated allowing dried contamination specks to be spread by wind. At the time of this release, contamination levels were 40,000 cpm on the ground within the retention basin fence. Smears of the walls and bottom of the basin ranged from 200-100,000 cpm. The area outside the retention basin fence revealed specks with a maximum level of 3,000 cpm located between the road and fence. A radiation survey of the 216-A-42 Basin perimeter fence done on 12-8-98 did not identify any contamination.

Related Site Structure: The release is associated with the 216-A-42 Basin.**Site Posting:** URM**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):**

Site Length:	Irregular m (Irregular ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	4046.9 m ² (43560.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	40,000 cpm on ground within retention basin fence. Smears on the walls and bottom of the basin were 200-100,000 cpm. Beta/gamma particulates w/ readings inside the basin of 40,000 cpm and outside the basin at 3,000 cpm in November 7, 1984.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$241,000**References:**

WIDS General Summary Report, DOE/RL-99-07, DOE/RL-2002-69, DOE/RL-2000-35

UPR-200-E-69

No Image Available

No Image Available

Site Name: UPR-200-E-69, UN-216-E-69, Railroad Car Flush Water Radioactive Spill, UN-200-E-69**Site Type:** Unplanned Release**Facility:** B Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

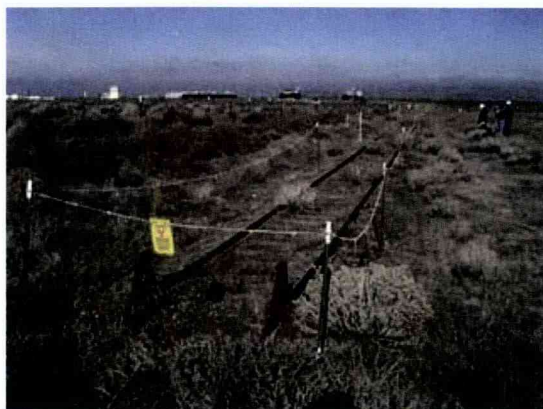
The railroad tunnel area has a 1.2 m (4 ft) high fence along the side of the tracks. The area was posted with Radiologically Controlled Area signs. In 1998, the track from the tunnel door to Atlanta Ave. was covered with gravel and reposted as URM. On 6/19/84, a concrete burial box (K-3 filter type) was removed from the 221-B railroad tunnel containing waste drums from 225-B and 221-B canyon waste. After loading, the burial string was bumped by the locomotive several times to remove the flush water from the lid of the burial box. No water was seen on the lid of the box or the deck of the flat car when the car left the tunnel. When the train stopped with the burial box about 180 m (600 ft) from the tunnel door, contamination was noted on and near the west rail of the track. Contamination levels were 20,000 cpm with 4000 cpm smearable on the track. The water was not noted before the box was moved because high dose rates coming from the burial box (400 mrem/hr at a distance of 100 ft) prevented personnel from getting close enough to identify any liquid. After the contamination was identified, the train could not move back into the tunnel without contaminating the locomotive.

Related Site Structure: None**Site Posting:** URM**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 10092.3 m² (108632.1 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	20,000 cpm w/ 4000 cpm beta/gamma smearable on the track. 400 mrem/hr at a distance of 100 ft on burial box in 1991.
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$755,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-88

Site Name: UPR-200-E-88, TC-4 Spur Contaminated Railroad Track, UN-216-E-88, UN-216-E-16, UN-200-E-88. Ground Contamination Around the Western Purex Railroad Spur

Site Type: Unplanned Release

Facility: 200 E Admin Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

The site is located northwest of the 202-A Building at the TC-4 Railroad Spur. The unfenced portion of the spur was posted as a "Contamination Area." Additional posting on portions of the spur included "Soil Contamination Area" and "Buffer Area." The spur is tracked with the property number "F187418". The site was interim stabilized in December 1998. The stabilized area was posted as a URM area. A chain link fenced storage area is located on the north end of the spur (see site code 200-E-43). The UPR was originally considered to be the fenced railcar storage area. Later, the contamination outside the fenced area became the focus of the contamination problem. In 1981, 2 hectares (5 acres) surrounding the spur was surveyed and released after tumbleweed clean up activities were completed. 0.4 hectare (1 acre) (approximately 6 m [20 ft] wide on both sides of the spur) remained posted as a "Surface Contamination Area." 1984 and 1986 radiation surveys show contamination south of the chain link fenced area (date this condition first existed is unknown). The railroad spur was intended to be used for the short-term parking of railroad cars transporting radioactive material. An Environmental Surveillance Compliance Report was issued in 1989 (8901EP200-001) identifying the spur as a surface contamination problem. The compliance report issue was closed in September 1996. A 1997 site inspection reports that the spur is posted as a "Contamination Area", with portions being posted as "Soil Contamination" and "Buffer Area." Radioactive particulates spread from contaminated railcars using the tracks. Surface radiological surveys performed in 1991 identified contamination of 20,000 to 60,000 dpm on the railroad track near where the tank cars were being staged. South of the tank cars, along the railway, contaminated areas of 2,000 to 20,000 dpm were also identified. In 1981, Harold Maxfield stated that the large radiation zone associated with the TC-4 railroad spur has been incorrectly designated as an unplanned release site. The original perimeter of the zone was posted where the gamma dose rates from radioactive tank cars parked on the railroad spur would be less than 1 mRad/hr. The site in question was properly known as a Regulated Equipment Storage Area.

Related Site Structure: The site is associated with 200-E-43.

Site Posting: URM

Release Mechanism: Leak/ Spill/ Windblown Particulate/ Vegetation

Release Type: Liquid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)
Site Width: Irregular m (Irregular ft)
Site Area: 3271.0 m² (35208.4 ft²)

Site Depth: Unknown m (Unknown ft)
Cover Thickness: 0.3-0.6 m (1-2 ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	Gamma dose rates are less than 1 mRad/hr in 1981; Identified contamination of 20,000 to 60,000 dpm on the railroad track near where the tank cars were being staged. South of the tank cars, along the railway, contaminated areas of 2,000 to 20,000 dpm were also identified in 1991.
Nonradiological	None	None

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$902,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-89

No Image Available

No Image Available

Site Name: UPR-200-E-89, UN-216-E-17, UN-200-E-89, Contamination Migration to the North, East & West of BX-BY Tank Farms

Site Type: Unplanned Release

Facility: B Farm Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

The site is located north of the 241-BY Tank Farm. It is believed the contamination occurred over time due to operations in the BY Tank Farm. The exact date of the release is unknown. The contaminated area east of the BY Tank Farm was identified in 1978. It was given an unplanned release number September of 1980. Over time, additional contamination was found north of BY Tank Farm. The size of the contaminated area increased due to wind blown particulate contamination migration from the tank farms and contaminated tumbleweeds. Airborne particulate matter contaminated the area bounding the north and northeast sides of the 241-BY Tank Farm. The airborne particulate matter was resuspended by wind from activities during the time of 241-BY Tank Farm operations. Airborne particulate matter from the 241-BX Tank Farm spread onto Baltimore Avenue roadway. Ground contamination was discovered at the 241-BX Tank Farm. The contamination was probably due to tank leakage. In 1991, the contaminated soil area was scraped from the site and consolidated on top of the 216-B-43 through 216-B-50 Cribs and covered the cribs with a layer of clean dirt. Following the scraping 83 soil samples were collected and analyzed for total alpha and total beta. All of the samples were below release limits. The UPR-200-E-89 area was surface stabilized and zoned off against casual entry and marked with "Underground Radioactive Material" signs. The site also includes an irregularly shaped drill pad area and a contaminated concrete pad that were also covered with clean dirt.

Related Site Structure: UPR-200-E-89 is associated with the 241-BX Tank Farm and the 241-BY Tank Farm.

Site Posting: URM

Release Mechanism: Windblown Particulate/ Vegetation

Release Type: Solid

Dimensions (estimated):

Site Length:	Irregular m (Irregular ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	12141.0 m ² (130684.5 ft ²)		

Potential Contaminants:

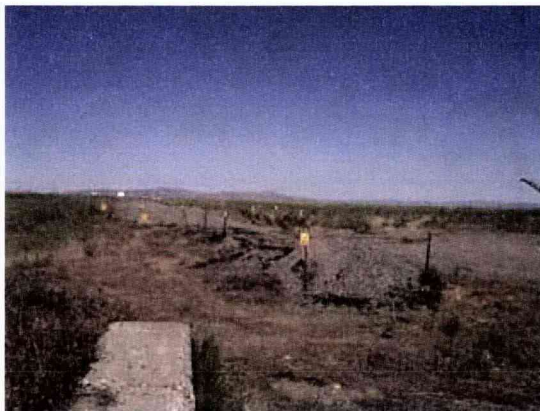
	Type	Constituents
Radiological	X	Beta and gamma contamination 500-2,000 cpm were detected at the site. Beta/gamma contamination were detected on the sides of the Baltimore Ave. roadway in 1978.
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$202,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-E-95

No Image Available

Site Name: UPR-200-E-95, UN-216-E-23, UN-200-E-95, Ground Contamination Around RR Spur Between 218-E-2A and 218-E-2

Site Type: Unplanned Release

Current OU: 200-MG-1

Facility: Solid Waste Area

Former OU: 200-SW-2

Waste Site Description:

The site is a railroad spur located south of the 218-E-2 and 218-E-5 Burial Grounds and north of the 218-E-2A Burial Ground. It had been barricaded with steel chain and posted as a Contamination Area. In 1998, the track was covered with gravel and reposted as a URM area. The contaminated area was established as an unplanned release site in September of 1980. In 1996, no railcars were observed on the spur. There are no known plans to store more railcars on the spur in the future. In March 2001, a single post was found in the gravel road north of the railroad track with a URM sign. It was determined that a small amount of contamination had migrated out of the posted area onto the road. The single post will be incorporated into the larger posted area. The railroad spur was used as an aboveground storage zone for low level contaminated equipment. Equipment from the B Plant and PUREX Plant operations were stored, for the most part, on the beds of railroad flat cars. UPR-200-E-95 is associated with this storage area. The contamination is possibly the result of the accumulation of many small releases over time. It became contaminated over time as a result of contaminated equipment on railroad flat cars being stored on the spur. The material stored on the rail cars contained unknown beta and gamma contamination with a maximum reading of 100,000 cpm. The contamination on the rail bed is the result of contaminated equipment being stored on the tracks over an extended amount of time.

Related Site Structure: UPR-200-E-95 is associated with the 218-E-2A and the 218-E-5 Burial Grounds and B-Plant operations.

Site Posting: URM

Release Mechanism: Contaminated Equipment Storage

Release Type: Solid

Dimensions (estimated):

Site Length: 250.0 m (820.0 ft)

Site Width: 5.0 m (16.0 ft)

Site Area: 1250.0 m² (13120.0 ft²)

Site Depth: Unknown m (Unknown ft)

Cover Thickness: 0.3-0.6 m (1-2 ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	September 20, 1991 inside contaminated area average reading of 2,000 counts per minute (beta) and a general rail reading of 3,000 - 6,000 cpm (beta) with a maximum of 350,000 dpm (beta) at one spot. Material on railcars had 100,000 beta and gamma contamination. 1996 perimeter survey found all levels to less than detectable.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$821,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

UPR-200-E-98

No Image Available

Site Name: UPR-200-E-98, UN-216-E-26, Ground Contamination East of C Plant (Hot Semi Works), UN-200-E-98**Site Type:** Unplanned Release**Facility:** Semi-Works Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

UPR-200-E-98 was established as a site in September 1980. The actual date of occurrence is unknown. The location of this site is currently within a large surface stabilized area known as 200-E-41. Much of the contamination was removed and placed into the 218-C-9 Burial Pit in 1992. The area has been surface stabilized with powerhouse ash. The covered area has "Underground Radioactive Material" warning signs posted. Radioactive particulate matter from the "Hot Semiworks" operations (1955 to 1965) was inadvertently spread to the ground surface. It contaminated the ground near the base of the 291-C Stack and around the 216-C-2 Reverse Well.

Related Site Structure: UPR-200-E-98 was associated with the C Plant (Hot Semiworks) Facility, the 291-C Stack and the 216-C-2 Reverse Well. The surface stabilized area is now known as 200-E-41.

Site Posting: URM**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Sr-90
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$106,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-101

No Image Available

No Image Available

Site Name: UPR-200-W-101, UN-216-W-9, 221-U Acid Spill R-1 through R-9, UN-200-W-101**Site Type:** Unplanned Release**Facility:** U Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

UPR-200-W-101 occurred in March 1957, when reclaimed acid was spilled onto the ground at the northeast end of the 221-U Building. Approximately 1 Ci. of fission products was released. An area 19.8 m (65 ft) by 27.5 m (90 ft) was covered with 3 in. of sand and gravel after the occurrence. In 1967, a Radiation Monitoring Management Report stated that approximately 1900 m² (20,000 ft²) of ground surface at the rear of the 221-U Building was resealed. The original tar surface over an old radioactive spill area had decomposed and allowed weeds to grow and bring contamination to the surface. The release site was posted with "Surface Contamination" warning signs. The contaminated ground was covered with sand and gravel. A larger contaminated area on the east side of 221-U was surface stabilized in 1998 (UPR-200-W-162). This unplanned release area was located within the UPR-200-W-162 posted area. After being covered with clean material, the posting was changed to URM. UPR-200-W-101 is not separately marked or posted within the area.

Related Site Structure: UPR-200-W-101 was associated with sections R-1 through R-9 of the 221-U Building and UPR-200-W-162.

Site Posting: URM**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 27.4 m (90.0 ft)**Site Depth:** 0.9 m (3.0 ft)**Site Width:** 19.8 m (65.0 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 543.5 m² (5850.6 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	1 Ci of fission products were released; acid contained 1 Ci of Sr-90. 300 cpm detected in September 1976
Nonradiological	X	Acid

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$168,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-116

No Image Available

No Image Available

Site Name: UPR-200-W-116, UN-216-W-26, Ground Contamination North of 202-S, UN-200-W-116**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The site has a light chain barricade and is posted with URM signs. It is possible that UPR-200-W-69 (a 1973 contamination spread from a contaminated drain pit) also contributed to the contamination at this location. The area designated as UPR-200-W-116 in 1980 was contaminated with particulates spreading by wind from the 204-S Waste Storage Tank exhaust and the related Railroad Tanker Waste Unloading Station. Radioactive particulates traveled eastward and affected an area approximately 0.8 hectares (2 acres) in size. In 1974, ground contamination, with radioactive levels up to 20,000 cpm, was identified.

Related Site Structure: UPR-200-W-116 was associated with the 204-S Waste Storage Tank, the 204-S Railroad Tanker Waste Unloading Station, and site code 200-W-22 (a larger area posted as Underground Radioactive Material).

Site Posting: URM**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 110.9 m (364.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 70.1 m (230.0 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 7777.8 m² (83720.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Ground contamination levels up too 20,000 cpm in 1974; beta/gamma ranging from 200 - 3000 cpm in 1981.
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$736,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-165

No Image Available

No Image Available

Site Name: UPR-200-W-165, Contamination Area East of 241-S, UN-216-W-30**Site Type:** Unplanned Release**Facility:** S/U Farm Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The originally posted area was scraped and the contaminated soil combined with other waste sites. The site had been a large area of posted Surface Contamination, located east of the 241-S Tank Farm, north of the steam line. The 216-S-23 and 216-S-9 cribs and the 216-S-18 excavation were inside the Surface Contamination Area posting. Some of the contaminated soil was placed on top of the 216-S-9 crib. Some was used to backfill the 216-S-18 depression. After collecting soil samples of the scraped area, the site was removed from radiological control. Radioactive surface contamination migrated from the 241-S, 241-SX, and 241-SY Tank Farms, eventually contaminating an area of approximately 4.7 hectares (11.5 acres).

Related Site Structure: UPR-200-W-165 was associated with contamination migration from operational activities in the 241-S, the 241-SX, and the 241-SY Tank Farms.

Site Posting: None**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 115.0 m (377.3 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 115.0 m (377.3 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 13225.0 m² (142366.6 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	200 cpm to 45 mRads/hr (original speck contamination) in 1995
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$241,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-23

No Image Available

No Image Available

Site Name: UPR-200-W-23, Waste Box Fire at 234-5Z, UN-200-W-23**Site Type:** Unplanned Release**Facility:** PFP Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A 1999 facility walkdown could not locate this unplanned release site. The approximate area is marked with a WIDS sign painted on the asphalt. In June 1953, a fire in a waste box resulted in approximately 28 m² (300 ft²) of ground contamination. The fire caused a spread of plutonium contamination with readings up to 10,000 dpm.

Related Site Structure: None

Site Posting: 1999 walkdown could not locate UPR; approximate area marked w/WIDS sign; Danger - Do Not Excavate In This Area Without SWP Permission

Release Mechanism: Fire**Release Type:** Solid**Dimensions (estimated):****Site Length:** 5.3 m (17.4 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 5.3 m (17.4 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 28.1 m² (302.4 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Plutonium
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$108,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-3

No Image Available

Site Name: UPR-200-W-3, Railroad Contamination, UN-200-W-3**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The T-Plant Railroad Cut is a posted Contamination Area from the tunnel door westward to a chain link gate. In May 2000, a 1.8 m by 1.8 m (6 ft by 6 ft) posted Contamination Area was reported to the WIDS database as a Discovery Site by the ISVAC team. It is located approximately 6 m (20 ft) west of the T-Plant chain link fence that crosses the railroad cut track and encloses the T-Plant facility. No radiological survey could be found to define the radiological conditions inside the posted area. It is not known which radiological control team erected the posting. Coordinates indicate that UPR-200-W-4 occurred near UPR-200-W-3 although no markers or signs of stabilization are apparent. On several occasions in 1949, contaminated equipment being hauled to the 200 West Burial Ground from T Plant contaminated ground near the railroad.

Related Site Structure: This site is associated with the 291-S Stack.**Site Posting:** None**Release Mechanism:** Unknown**Release Type:** Solid, Liquid, ?**Dimensions (estimated):****Site Length:** 1.8 m (5.9 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 1.8 m (5.9 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 3.2 m² (34.9 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,273,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-39

No Image Available

No Image Available

Site Name: UPR-200-W-39, UN-200-W-39, 224-U Buried Contamination Trench**Site Type:** Unplanned Release**Facility:** U Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The release site is not marked because the 224-UA Building was built over the release location. The disposal trench is now covered by the 224-UA building addition. The area was removed from radiation zone status in June 1972. A leak from 224-U, during March 1954, spread to an area southeast of the 224-U Building. The contamination was placed in a trench that measured 3.1 m (10 ft) wide by 15.2 m (50 ft) long. The contamination was covered with 0.9 m (3 ft) of clean soil.

Related Site Structure: The release is associated with the 224-U Facility.**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 15.2 m (50.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 3.0 m (10.0 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 46.5 m² (500.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Less than 10 nanoCi/g Uranium
Nonradiological	None	None

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$415,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-4

No Image Available

No Image Available

Site Name: UPR-200-W-4, Railroad Contamination, UN-200-W-4**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The release is not physically marked or posted. The 218-W-1A Burial Ground is known to contain large pieces of contaminated equipment and is likely to be the Heavy Equipment Burial Ground mentioned in HW-13190. In 1949, contamination spread from a burial box that had been transported from the 221-T Canyon Building to the Heavy Equipment Burial Ground. After the box was buried, the bulldozer used to cover the trench was found to be contaminated with dust which had readings up to 10,000 cpm. A complete survey was made from the Canyon Building to the Heavy Equipment Burial Ground, which revealed a spread of contaminated particles. The most contamination was found in the vicinity northeast of the burial ground.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill/ Windblown Particulates**Release Type:** Solid and Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Average readings on the track were 7 mrem/hr. Dust reading of up to 10,000 c/m in 1949.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,273,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-41

No Image Available

Site Name: UPR-200-W-41, Railroad Contamination, UN-200-W-41, REDOX Railroad Cut Contamination

Site Type: Unplanned Release

Facility: REDOX Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

Radiologically contaminated fuel rods were transported to the REDOX facility for processing by railcar. Contaminated material and equipment were transported to the burial grounds on the same railroad track. Over time the railroad track became contaminated. The railroad track from the 202-S Tunnel to the first gravel road intersection has been covered with clean backfill material. The berms on the sides of railroad cut have been pushed in and posted as an "Underground Radioactive Material" area. On 7/7/56, during the transit of a box containing the J-5 Filter and miscellaneous equipment from the 202-S Building Canyon, spotty contamination up to 1,000 mRads/hr at surface was spread along the right-of-way from the 202-S Building railroad cut to the burial ground presumably from liquid contained in the burial box. Six spots of 1,000 mRads/hr were found on the east side of the track on the blacktop at the 16th Avenue crossing. The area was immediately roped off and was eventually decontaminated to less than 1,000 cpm. Initial surveys indicated spotty contamination from 100 to 500 mRads/hr along the east side of the right-of-way diminishing in frequency from 19th Avenue to the burial ground. A check of the flat car used for the burial revealed low level contamination on all horizontal surfaces of 10,000 to 20,000 cpm and several areas on the paper in the southeast corner of the flat car to 3,000 mRads/hr at surface. Special fiberglass deposition filters placed along the tracks did not indicate a general contamination spread.

Related Site Structure: The site is associated with 202-S and UPR-200-W-42.

Site Posting: URM

Release Mechanism: Leak/ Spill

Release Type: Liquid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)

Site Depth: Unknown m (Unknown ft)

Site Width: Irregular m (Irregular ft)

Cover Thickness: 0.3-0.6 m (1-2 ft)

Site Area: 22087.4 m² (237747.3 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Waste was contaminated with beta/gamma 1000 mRads/hr; 100 to 500 mRads/hr along east side of right-of-way. Flat car: 10,000-20,000 cpm; paper in Flat car had 3,000 mRad/hr. All in 1956.
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,775,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-43

No Image Available

No Image Available

Site Name: UPR-200-W-43, Contaminated Blacktop East of 233-S, UN-200-W-43**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The site is no longer marked or posted. The 233-S building was demolished in 2003 and 2004. The electrical substation referred to is probably the two transformers labeled C2465E and C2466E located adjacent to the north wall of the REDOX facility and approximately 80 m (260 ft) east of 233-S. In 1957, references to contamination in dpm indicate alpha contamination. A radiation zone was originally established in this area in 1/57, but was surveyed and found to be free of contamination. On 2/12/57, a small roped area at the corner of the electrical substation east of 233-S was being surveyed for release after being decontaminated. An area of blacktop beyond the posted area was found to be contaminated with levels up to 2,000 dpm. The Records Management Officer (RMO) day supervisor, who was observing the survey, contaminated his shoes to 1,000 dpm. The contaminated shoes were cleaned to less than 500 dpm released. The cause of the contamination spread could not be determined. However, it is presumed that the contamination from inside the posted area blew out during a wind storm. In 1957, the area was posted as a Radiation Zone pending clean up.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 10.5 m (34.6 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 10.5 m (34.6 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 111.2 m² (1197.3 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	2000 dpm alpha on February 12, 1957.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$86,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-44

No Image Available

No Image Available

Site Name: UPR-200-W-44, Railroad Track Contamination, UN-200-W-44**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

In 1957, a burial box in transit to a decontamination facility fell to the ground while the train was in motion and lodged against a steam line support. The exact location is unknown. On October 24, 1957, a burial box, used to transport failed equipment from REDOX to the T Plant Canyon, was inadvertently pulled from the railcar when one of the box sling cables caught on a railroad tie, or possibly a switch frog. The area was contaminated up to 2 Rads/hr. In May 2004, a radiation survey of the 200 West Area railroad tracks was from REDOX to T Plant, to try to verify the location of the release. A sodium iodide detector was used. No contamination above background was noted.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Solid and Liquid (?)**Dimensions (estimated):****Site Length:** 7.6 m (25.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 6.1 m (20.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 46.5 m² (500.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	2 rads/hr beta/gamma on October 24, 1957.
Nonradiological	Unknown	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,775,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-46**No Image Available****No Image Available****Site Name:** UPR-200-W-46, Contaminated Railroad Track, H-2 Centrifuge Burial, UN-200-W-46**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The railroad track from the 202-S Tunnel to the first gravel road intersection has been covered with clean backfill material. The railroad cut located inside the facility fence is posted as a "Contamination Area." The section of covered track from the fence to the first gravel road intersection is posted as an "Underground Radioactive Material" area. Shortly after the H-2 Centrifuge was placed in a burial box in the REDOX RR Tunnel on 12/30/57, fumes were observed coming from the centrifuge. After about 4 hours, fumes escaped the tunnel and began circulating throughout the REDOX Bldg via the ventilation system requiring respiratory protection for all personnel entering the N side of REDOX or the 233-S Building (and extended to the south operating areas of REDOX). Considerable surface contamination was deposited in/around REDOX, including construction work areas outside the building. The centrifuge was transported by train to the burial ground; no contamination was observed along the railroad right-of-way. It was buried at about 10:00 A.M on 12/31/57. Dose rates related to the burial were 185 mRads/hr at 177 m (580 ft); about 2 mRads/hr at 0.8 km (0.5 mi.). Radiation fields averaging 1 Rad/hr during backfilling prevented the box from being completely buried in 1 day; 2 employees received face/nosril contamination; 2 days later, radiation surveys revealed a general low level smearable contamination along the railroad right-of-way.

Related Site Structure: None**Site Posting:** CA/URM**Release Mechanism:** Leak/ Spill**Release Type:** Solid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	185 mRads/hr at 177 m (580 ft) on December 30, 1957
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,775,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-51

No Image Available

No Image Available

Site Name: UPR-200-W-51, Release from 241-S Diversion Box, UN-200-W-51, UPR-200-W-52**Site Type:** Unplanned Release**Facility:** S/U Farm Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

On 9/12/58, high pressure steam was applied to the D-8 line of the 241-S Diversion box in an attempt to unplug it. The pressure bled back into the diversion box and caused a release of contamination. A follow-up survey revealed contamination readings up to 1 Rad/hr immediately around the box. Contamination levels 30 m (100 ft) south of the diversion box were 50 mRads/hr. A narrow strip of contamination extended southward, across Tenth St, with contamination levels of 4,000 cpm. The contamination continued southward approximately 91.44 m (100 yds) beyond the 200 West Area fence. The particles outside of the 200 West Area fence read on the order of 5,000 cpm. The contaminated areas were posted and the gross contamination was flushed with water. The release site is not currently marked or posted. The area where this release had been located (in 1958) is near an area that was surface stabilized in 1992 (UPR-200-W-165). Because the plume was 100 m wide extending southward from the 241-S-151 diversion box, the release effected a portion of the area known as UPR-200-W-165.

Related Site Structure: The site is associated with the 241-S-151 Diversion Box, UPR-200-W-52, UPR-200-W-114 and UPR-200-W-165.

Site Posting: None**Release Mechanism:** Diversion Box Release**Release Type:** Solid and Liquid**Dimensions (estimated):****Site Length:** 525.0 m (1722.5 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 91.4 m (300.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 48006.0 m² (516782.7 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	1 Rad/hr - 50 mRad/hr; 4,000-5,000 cpm on September 12, 1958
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$241,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-56

No Image Available

No Image Available

Site Name: UPR-200-W-56, Contamination at the REDOX Column Carrier Trench, UN-200-W-56**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The site is located inside the REDOX facility fence. It is not separately marked or posted. On 2/6/61, a sudden heavy rainstorm washed contamination from a papered area of an outside radiation zone into a ground recess adjacent to the zone. A grossly contaminated steel cable was being decontaminated and contamination was spread out of the radiation zone across the sloping terrain. Contamination to 30,000 cpm was detected over about 19 m² (200 ft²) of the graveled surface and 4.7 m² (50 ft²) of blacktop directly beneath the paper. The blacktop was contaminated to 80,000 cpm by the rainwater soaking through the seams of the paper. The contaminated area was immediately roped off from traffic.

Related Site Structure: None**Site Posting:** Posted within a larger Area; Not separately.**Release Mechanism:** Stormwater Runoff**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Beta/gamma contamination 30,000 cpm on gravel and 80,000 dpm on blacktop on February 6, 1961
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$161,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-57

No Image Available

No Image Available

Site Name: UPR-200-W-57, UPR-200-E-120 (error in area number assignment), UN-200-W-57, 233-S Fire**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A fire, which started in the 233-S Building, spread plutonium contamination throughout the building and to a small degree outside of the building. The release site is not physically marked or posted. Decontamination of the 233-S Building began in 1997. Building demolition began in 2001 and was completed in 2004. On 11/6/63, a fire started in the 233-S Building. The underlying cause of the incident was not positively identified. Plutonium contamination was spread within and outside the building by smoke and firefighting operations. It took about 1.5 hr to put out the fire with dry chemical extinguishers (sodium bicarbonate). Alpha radiation levels after the fire were greater than 5 million dpm from plutonium-contaminated materials in the soot, ashes, and in the air.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Fire**Release Type:** Solid, Liquid, ?**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** Unknown m² (Unknown ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Plutonium. Alpha radiation measured at greater than 5 million dpm in the soot, ashes and in the air on November 6, 1963
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$122,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-58

No Image Available

Site Name: UPR-200-W-58, Railroad Track Contamination, UN-200-W-58**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The Unplanned Release is not separately marked or posted from other postings on the railroad track. A site visit in October 1991 found no site identification markers or signs of stabilization along the railroad track. In 1991, a portion of the track leading into T-Plant was marked with a surface contamination barricade. On 4/26/65, a beta-gamma contamination spread occurred during the process of transporting 221-T Plant canyon cell blocks from the 221-T canyon and burying them in the 200 West Burial Ground. Two small spots approximately 15 cm (6 in.) in diameter with reading of 5 Rads/hr were found on one end of the deck of flat car #19382. Railroad bed surfaces in the 221-T cut were found to have spotty contamination to a maximum of 100,000 cpm. The undercarriage of the locomotive used was contaminated generally to 20,000 cpm. A rigger and a train crew brakeman received contamination on their shoes and socks. The contamination spread from the underside of an improperly prepared cell block to the deck of the flat car. Further spread occurred when the radiation monitor failed to capture the train following detection of loss of radiological control in the 221-T cut.

Related Site Structure: None**Site Posting:** Not separately posted from other postings on the railroad tracks.**Release Mechanism:** Leak/ Spill**Release Type:** Solid and Liquid**Dimensions (estimated):**

Site Length:	Irregular m (Irregular ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0 m (0 ft)
Site Area:	6760.0 m ² (72763.6 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Beta/gamma, 5 Rads/hr (end of flat car); 100,000 cpm (RR bed surface); 20,000 cpm (underside of railcar) on April 26, 1965.
Nonradiological	X	Unknown

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$2,084,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-61

No Image Available

No Image Available

Site Name: UPR-200-W-61, REDOX Ground Contamination, UN-200-W-61**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The area is not currently marked or posted. On 4/24/66, a fire hose ruptured while flushing the H-10 to 241-SX transfer line. Back flow from the transfer line contaminated an outside ground area. Readings were from 4,000 to 100,000 cpm over an area of about 19 m² (200 ft²).

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 4.3 m (14.1 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 4.3 m (14.1 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 18.5 m² (199.0 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Unknown
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$180,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-63

No Image Available

No Image Available

Site Name: UPR-200-W-63, Road Contamination along the South Shoulder of 23rd Street, UN-200-W-63**Site Type:** Unplanned Release**Facility:** T Farm Area**Current OU:** 200-MG-1**Former OU:** 200-SW-2**Waste Site Description:**

The release site is not currently marked. On 9/21/66, Strontium-90 in the form of particulate matter spread from a used diversion box jumper as it was being transported from the 200 West Dry Waste Burial Ground to the 221-T Canyon. The jumper had just previously been removed from the 241-TX-153 Diversion Box. Spotty contamination on 23rd Street was found along the road and shoulder. Speck contamination approximated one per sq. yd. of ground surface along the shoulder of 23rd St.

Related Site Structure: It is possible this release is associated with the radiologically posted areas 200-W-90.**Site Posting:** None**Release Mechanism:** Windblown particulate**Release Type:** Solid**Dimensions (estimated):****Site Length:** 152.4 m (500.0 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0.1 m (0.5 ft)**Site Area:** 1090.4 m² (11737.4 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Sr-90 activity of 1 Ci. Spots of contamination 500 mRads/hr on road in 1966.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$86,000**References:**

WIDS General Summary Report, DOE/RL-2004-60

UPR-200-W-65

Site Name: UPR-200-W-65, Contamination in the T-Plant Railroad Cut, UN-200-W-65

Site Type: Unplanned Release

Facility: T Plant Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

The railroad cut is currently posted as a Contamination Area, extending from the tunnel door westward to a chain link gate and fence. On 10/27/69, contamination was found during a routine survey of the 221-T Plant railroad cut. Spots of contamination from 5,000 cpm to 150 mRads/hr were found between the rails of the spur line and adjacent to the spur line. One area, about 45.72 m (50 yds) from the tunnel door, was generally contaminated over an area measuring 0.9 m (3 ft) by 3 m (10 ft). From this area west, the contamination spots were spaced a few inches to a few feet until approximately 114.3 m (125 yds) from the tunnel door, where the contamination was non-detectable. The exact source of the contamination is unknown, but the location limits the cause to a railcar carrying radioactive material which was not effectively contained.

Related Site Structure: None

Site Posting: CA

Release Mechanism: Leak/ Spill

Release Type: Liquid

Dimensions (estimated):

Site Length: 114.0 m (374.0 ft)

Site Depth: Unknown m (Unknown ft)

Site Width: 1.0 m (3.3 ft)

Cover Thickness: 0 m (0 ft)

Site Area: 114.0 m² (1227.2 ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	5000 cpm to 150 mRads/hr on October 27, 1969
Nonradiological	X	Unknown

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$2,273,000

References:

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-67

No Image Available

No Image Available

Site Name: UPR-200-W-67, Contamination near 2706-T, UN-200-W-67**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

On 8/5/70, a contaminated electric lift was parked outside a radiation zone on the north side of the 2706-T building. Contamination from the vehicle affected the ground beneath the vehicle; an area of approximately 0.91 m (3 ft) by 7.32 m (24 ft). The ground was contaminated with a maximum of 20,000 cpm. The lift had been positioned outside of the radiation zone awaiting a radiological release survey. The electric lift was from 221-B Plant, but had not been properly surveyed before being moved to 2706-T. A site visit in October 1991 found a fence surrounding the 2706-T Building on the south, west, and north sides extending about 30.48 m (100 ft) from the building. The north side of the building is paved with gravel and is used for equipment storage. There were no radiation hazard postings. The unplanned release site is no longer marked or posted.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Contaminated Vehicle**Release Type:** Solid**Dimensions (estimated):**

Site Length:	7.3 m (24.0 ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	0.9 m (3.0 ft)	Cover Thickness:	0 m (0 ft)
Site Area:	6.7 m ² (72.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	20,000 cpm beta/gamma on the ground; 500 mRads/hr on the electric lift both on August 5, 1970.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$86,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-70



No Image Available

Site Name: UPR-200-W-70, Contamination Found at the 200 West Burning Ground East of Beloit Ave.

Site Type: Unplanned Release

Current OU: 200-MG-1

Facility: T Plant Area

Former OU: 200-SW-1

Waste Site Description:

The release site is not marked or posted. A mapping data point (dot) estimates the location, placing it adjacent to the northwest access road into the 200-W ADB (ash disposal basin). The area is currently covered with several feet of ash. The 200 West Ash Disposal Basin and 200 West Burn Pit do not currently have any radiological or hazardous postings. The southwest portion of the pit contains coarse gravel; the northern part is covered with ash to the former ground surface. On 1/22/73, a quarterly routine survey of the 200 West Area Burning Pit revealed several spots of beta-gamma contamination measuring 5,000 to 50,000 cpm along the bumper rails at the edge of the combustible trench. Additional surveys disclosed other contamination measuring from 20,000 cpm to 30 mRads/hr in the trench proper and a one-gallon bucket contaminated in excess of 100,000 cpm (250 mRads/hr). Samples of the contamination were obtained for laboratory analysis. A dump area on the south side of the combustible trench, about 3.7 by 6.7 m (12 by 22 ft), was found to contain alpha contamination with readings ranging from 5,000 to 200,000 dpm. The cause of the contamination was the unauthorized disposal of contaminated material in a non contaminated burning trench.

Related Site Structure: The site is associated with the 200 West Burn Pit, and is within the 200-W ADB.

Site Posting: None

Release Mechanism: Dumping Area

Release Type: Solid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)
Site Width: Irregular m (Irregular ft)
Site Area: Unknown m² (Unknown ft²)

Site Depth: Unknown m (Unknown ft)
Cover Thickness: 0.6-0.9 m (2-3 ft)

Potential Contaminants:

	Type	Constituents
Radiological	X	5,000-50,000 cpm beta/gamma; 20,000 cpm to 30 mRads/hr; 100,000 (250 mRads/hr); alpha ranging from 5,000 to 200,00 dpm. Americium-plutonium contamination on sample from trench. All in 1973.
Nonradiological	X	Unknown

Preferred Removal Action: RTD

Estimated Removal Action Present Worth: \$137,000

References:

WIDS General Summary Report, DOE/RL-2004-60

UPR-200-W-71

No Image Available

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Site Name: UPR-200-W-71, UN-200-W-71, Contamination Spread along 16th Street**Site Type:** Unplanned Release**Facility:** WM Area/ PFP Area/200 W Ponds Area/S/U Area,**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

Contamination was spread onto the road along the route from the 241-U Tank Farm to the 200 West Burial Ground, affecting 16th Street and Dayton Ave. The site is no longer marked or posted. The information does not include the burial ground site number. Since there are several burial grounds on Dayton Ave., it is not possible to determine the length of the contamination spread. On 1/24/74, contamination spread occurred along the roadways in 200 West Area. ARHCO personnel removed a heel-jet from the 241-U-102 Tank in the 241-U Farm. The jet was taken to the burial ground by truck. After the jet was removed from the truck and placed in the burial trench, the truck was found to be contaminated. A follow-up survey revealed contamination along the route of the truck. At the exit of the 241-U Farm, on 16th Street, spots to 600 mRads/hr were found. Numerous contaminated spots from 20,000 to 100,000 cpm were found along 16th Street to the intersection of 16th St and Dayton Ave, and on Dayton Ave. to the burial ground. The cause of the contamination spread included inadequate packaging of the failed equipment, inadequate surveillance of the load during transit, and transporting the equipment while it was raining, which made surveillance difficult.

Related Site Structure: None**Site Posting:** None**Release Mechanism:** Contaminated Equipment**Release Type:** Liquid**Dimensions (estimated):****Site Length:** Irregular m (Irregular ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** Irregular m (Irregular ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 7809.0 m² (84055.7 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	20,000 to 100,000 cpm; Beta-gamma contamination up to 600 mRads/hr on January 24, 1974
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$347,000**References:**

WIDS General Summary Report, DOE/RL-2004-39

UPR-200-W-73

No Image Available

No Image Available

Site Name: UPR-200-W-73, Contaminated Railroad Track at 221-T, UN-200-W-73**Site Type:** Unplanned Release**Facility:** T Plant Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

The railroad cut adjacent to the 221-T tunnel is currently posted as a Contamination Area. The rail spur leading into the 2706-T facility is currently not posted. The Unplanned Release area is not specifically marked or posted. On 10/16/74, a contamination spread from a leaking multi-purpose transfer box was discovered. During a routine survey in the 221-T Building Tunnel, on 10/14/74, contamination levels up to 3,800 mRads/hr were detected on the bed of the multi-purpose transfer box railroad car. During the decontamination effort (10/15/74), a hair-line crack was observed in a weld of the outer shell of the transfer box. Radiation readings on the transfer box were reduced to 350 mRads/hr and 600 cpm smearable on 10/16/74. The railcar was moved to the 2706-T Building so repairs could be made. A follow-up survey of the railcar at 2706-T indicated that additional contamination had seeped out; radiation readings on the railcar had increased to 50,000 cpm smearable. A survey of approximately 365.76 m (400 yds) of railroad track between 221-T Building Tunnel and the 2706-T Building revealed spots of contamination up to 40 mRads/hr. The cause of the leakage was migration of decontamination solution to the hair-line crack area and subsequent leaking due to rail movement of the transfer box.

Related Site Structure: None**Site Posting:** CA**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 365.8 m (1200.1 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 6.1 m (20.0 ft)**Cover Thickness:** 0 m (0 ft)**Site Area:** 2229.7 m² (24002.3 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	3800 mRads/hr on bed of RR car; 40 mRads/hr on RR track beta/gamma in 1974
Nonradiological	X	Unknown

Preferred Removal Action: RTD**Estimated Removal Action Present Worth:** \$2,273,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-200-W-96

No Image Available

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Site Name: UPR-200-W-96, UN-216-W-4, 233-S Floor Overflow, 233-SA Floor Overflow**Site Type:** Unplanned Release**Facility:** REDOX Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

WHC-SP-0331 states the 233-S Plutonium Concentration Facility was sealed off and retired from service in 1967. Although The S Plant Aggregate Area Management Study Technical Baseline report states the release site lies within the UPR-200-W-116 Site boundaries and is posted with URM signs, the release actually occurred adjacent to the 233-SA building and not totally within the UPR-200-W-116 stabilized area. The release effected the floor of the 233-SA Filter Exhaust Building, the concrete pad outside the north door of the filter exhaust building, the electric motor pad, and the ground surface on the north side of the 233-SA filter exhaust building. The 233-S facility was demolished in 2003 and 2004. The release site is not specifically marked or posted. On 1/9/69, plutonium-contaminated water backed up in the 233-SA Filter House drain and overflowed to a low spot on the ground directly north of the 233-S Building. Because the ground was frozen, the water could not percolate, so a pool formed. The area effected was reported as 150 yd² (125.42 m²).

Related Site Structure: UPR-200-W-96 was associated with the 233-SA Filter Exhaust Building.**Site Posting:** None**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):**

Site Length:	Irregular m (Irregular ft)	Site Depth:	Unknown m (Unknown ft)
Site Width:	Irregular m (Irregular ft)	Cover Thickness:	0.3-0.6 m (1-2 ft)
Site Area:	125.4 m ² (1350.0 ft ²)		

Potential Contaminants:

	Type	Constituents
Radiological	X	Pu-239, 600-40,000 dpm in October 1975.
Nonradiological	None	None

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$109,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-600-12

No Image Available

No Image Available

Site Name: UPR-600-12, UN-600-12, UNH Spill to Route 4S**Site Type:** Unplanned Release**Facility:** NRDWL/BC Control Area**Current OU:** 200-MG-1**Former OU:** 200-UR-1**Waste Site Description:**

A small radiologically posted area (URM area) is located on the south shoulder of Route 4S, near the top of the hill, southeast of 200 East Area. After the accident, most of the contamination was removed from the road surface. The remaining contamination was washed off the road and covered with dirt. A portion of Route 4S was resurfaced in 1954 and the spill area was marked with an Underground Contamination sign. Although previous documentation indicated the area had been excavated and released, the presence of uranium in the 1998 soil sample indicates the presently posted area is the same site as the spill incident. On 12/30/54 a tractor-trailer overturned on the 200 East Hill, spilling 6,060 L (1,600 gal) of uranium nitrate hexahydrate solution onto the road and shoulder. General contamination levels of 60 mRad/hr were found on the road and the shoulder. Part of the contamination was removed and the balance was washed off the road. A thin layer of blacktop was added to the road to cover the spill area. The shoulder contamination was covered with dirt. The contamination levels were reduced to a maximum of 20,000 cpm.

Related Site Structure: None**Site Posting:** URM**Release Mechanism:** Leak/ Spill**Release Type:** Liquid**Dimensions (estimated):****Site Length:** 6.5 m (21.3 ft)**Site Depth:** Unknown m (Unknown ft)**Site Width:** 2.5 m (8.2 ft)**Cover Thickness:** 0.3-0.6 m (1-2 ft)**Site Area:** 16.3 m² (174.9 ft²)**Potential Contaminants:**

	Type	Constituents
Radiological	X	Uranium, uranium nitrate hexahydrate solution
Nonradiological	X	Unknown

Preferred Removal Action: CS-NA**Estimated Removal Action Present Worth:** \$168,000**References:**

WIDS General Summary Report, DOE/RL-2006-50, DOE/RL-2004-39

UPR-600-21

Site Name: UPR-600-21, Contamination found Northeast of 200 East Area, UN-216-E-31

Site Type: Unplanned Release

Facility: 200 E Ponds Area

Current OU: 200-MG-1

Former OU: 200-UR-1

Waste Site Description:

Contamination specks and tumbleweed fragments were originally identified near the railroad track northeast of 200 East Area. The site had been a large radiologically posted area. Additional radiation surveys enlarged the area of contamination to include a large area (approximately 30 acres) extending north of the railroad track to Route 11A and southward to the 216-E-28 Contingency Pond area, near B Pond. The area is no longer marked or posted but was originally posted with Radiological Controlled Area warning signs. In 1990, the Health Physics group changed the posting to Surface Contamination. In 1991, all radiological postings were removed. In 2004, Ecology determined more information is required to disposition and reclassify the site. No definitive time has been determined for when to collect information. The release was a result of contaminated tumble weeds that migrated and decomposed in the area and possibly specks from the PUREX stack or a nearby burial ground.

Related Site Structure: None

Site Posting: None

Release Mechanism: Vegetation (tumbleweeds)

Release Type: Solid

Dimensions (estimated):

Site Length: Irregular m (Irregular ft)

Site Depth: Unknown m (Unknown ft)

Site Width: Irregular m (Irregular ft)

Cover Thickness: 0 m (0 ft)

Site Area: Unknown m² (Unknown ft²)

Potential Contaminants:

	Type	Constituents
Radiological	X	Unknown
Nonradiological	None	None

Preferred Removal Action: CS-NA

Estimated Removal Action Present Worth: \$86,000

References:

WIDS General Summary Report, DOE/RL-2004-39

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APPENDIX B

WASTE SITE ATTRIBUTES

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APPENDIX B

WASTE SITE ATTRIBUTES

This appendix presents attributes of each site evaluated to determine the preferred removal action alternative. Table B-1 is organized by site type, which allows a row-by-row comparison by waste site type. The table also lists the attributes of the 200-MG-1 Operable Unit waste sites. The following attributes are given in the table:

- Waste site code
- Current status
- Waste site type
- Waste site name
- Facility area
- Physical setting
- Backfill status
- Surface cover status
- Surface cover thickness
- Site area, length, width, depth
- Potential contaminant interval
- Summary of prior cleanup activities
- Release mechanism
- Release type
- Potential constituents (radioactive and nonradioactive).

Table B-2 is a subset of the 200-MG-1 Operable Unit waste sites not presented in Table B-1. The list consists of 25 septic systems that have at least one septic tank and one tile field. The tank and tile fields were costed differently and have different attributes. This table was used to evaluate information on each part of the septic system so a preferred alternative could be chosen.

Waste site descriptions and other information are quoted directly from the Waste Information Data System database and other references. No modifications have been made to maintain consistent format, and references cited in those descriptions are not provided.

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Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
291-C-1	Inactive	Burial Ground	291-C-1, 291-C-1 Stack, 291-C Stack Burial Trench	Semi-Works Area	Burial Ground	Y	Y	1-2	4800	200	24	Unk.	0-7	In 8/88 explosives were used to fell the stack into a trench south of the base of the stack. Before demolition, the interior of the stack was partially decontaminated by remote sand blasting. The remainder of the contamination was stabilized with latex paint. The stack base was filled with concrete and the area was covered with an ash barrier.	Burial Ground	Solid	Cs-137, Sr-90, estimated 100 Ci of Pu and 600 Ci of beta contamination	Unk.
218-W-9	Inactive	Burial Ground	218-W-9, Dry Waste Burial Ground No. 9, Non-TRU Dry Waste No. 009	Redox Area	Burial Ground	Y	Y	1-2	13720	140	98	15	0-15	Excavation in the area of the broken pipeline within the eastern portion of the burial ground in occurred in 1969. The site was interim stabilized in 1991 with a 1.5- 2.0 ft layer of clean backfill.	Burial Ground	Solid	Mixed. Waste contains <0.1 curie total beta. REDOX scrap metal was contaminated with ruthenium-106.	Unk.
218-E-7	Inactive	Burial Vault	218-E-7, 200 East 222-B Vaults	B Plant Area	Burial Vault	Y	Y	1-1.5	885	59	15	29		The disposal chutes on the wooden vaults were removed. Clean soil was added to bring the grade up to the level of the surrounding area.	Disposal of mixed fission product/transuranic wastes.	Solid	Mixed fission products/transuramic waste.	Uuk
218-W-7	Inactive	Burial Vault	218-W-7, 222-S Vault	Redox Area	Burial Vault	N	N	None	144	12	12	25		None	Disposal of dry, packaged laboratory and sampler wastes.	Solid and Liquid (?)	Mixed	Uuk
218-W-8	Inactive	Burial Vault	218-W-8, 222-T Vault	T Plant Area	Burial Vault	Y	Y	Unk.	3495	81	43	29		In 1975, an unknown amount soil was added to the surface to fill in sinkholes. A site investigation was done in 1996. Excavations were made to a depth of 3 meters (10 ft). Based on the excavations, it was determined the two wooden structures had been previously filled in with dirt. The site was regraded and surface stabilized.	Disposal of laboratory process sample waste	Solid and Liquid (?)	Mixed	Uuk
200-E BP	Inactive	Burn Pit	200-E BP, 200-E Burning Pit, 200 East Burn Pit	Solid Waste Area	Burn Pit	N	N	None	7.9E+4	394	201	15	0-1 (spotty)	None	Dumping Area/ Burning	Solid and Liquid	Unk.	Asbestos, organics, metals
200-W BP	Active	Burn Pit	200-W BP, 200-W Burning Pit, Pit 34	T Plant Area	Burn Pit	N	N	None	4.0E+4	200	200	Unk.	0-1 (spotty)	None	Dumping Area	Solid	Beta-gamma radiation measuring from 5,000-50,000 cpm.	Unk.
600-36	Inactive	Burn Pit	600-36, Ethel Railroad Siding (Burn Pit)	200 E Ponds Area	Burn Pit	N	N	None	1.8E+4	60	300	Unk.	0-1 (spotty)	None	Dumping Area	Solid and Liquid	None	Misc. debris, demolition and inert waste
600-71	Inactive	Burn Pit	600-71, 607 Batch Plant Burn Pit	ERDF Area	Burn Pit	N	N	None	8000	100	80	Unk.	0-1 (spotty)	None	Unk.	Solid	None	Misc. debris, demolition and inert waste
200-W ADB	Inactive	Coal Ash Pit	200-W ADB, 200-W Ash Disposal Basin	T Plant Area	Coal Ash Pit	N	N	None	4.8E+5	800	600	Unk.	0-1 (spotty)	None	Ash Disposal	Solid	None	Unk.
216-A-1	Inactive	Crib	216-A-1, 216-A-1 Cavern, 216-A-1 Trench	200 E Ponds Area	Crib	Y	Y	2	7191	85	85	15	15-20	In 1992 the contaminated soil was scraped and consolidated, then backfilled.	Contaminated Effluent	Liquid	U-238	As, Mn, U

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
216-A-28	Inactive	Crib	216-A-28, 216-A-28 French Drain, 216-A-28 Crib	PUREX Area	Crib	Y	N	None	314	None	20	11	11-15	The site was excavated 6 m diameter at grade and 3 m bottom diameter, then backfilled to grade.	Contaminated Effluent	Liquid	Unk.	Uranium
216-A-3	Inactive	Crib	216-A-3, 216-A-3 Cavern, 216-A-3 Crib	PUREX Area	Crib	Y	N	None	5112	72	72	16	16-20	The site has been backfilled.	Contaminated Effluent	Liquid	Cesium-137, Strontium-90, and Ruthenium-106	UNH, uranium,
216-A-9	Inactive	Crib	216-A-9, 216-A-9 Crib	PUREX Area	Crib	Y	Y	2	8400	420	20	13	13-25	The site was deactivated by blanking the pipeline. The site unloading station was interim stabilized in 1991. In 1993 the filters were removed from the crib risers, the site was backfilled. In 7/00 the vent risers were sealed.	Contaminated Effluent	Liquid	Unk.	Metals
216-C-10	Inactive	Crib	216-C-10, 216-C-10 Crib	Semi-Works Area	Crib	Y	Y	1-2	1378	53	26	8	8-15	The crib was surface stabilized in 1989, and the vent risers were sealed in 2000.	Process Condensate	Liquid	Unk.	Unk.
216-C-3	Inactive	Crib	216-C-3, 201-C Leaching Pit, 216-C-3 Crib	Semi-Works Area	Crib	Y	Y	1	2944	70	42	10	10-15	In 1979 the crib surface was decontaminated and surface stabilized.	Process Condensate	Liquid	Unk.	Unk.
216-C-5	Inactive	Crib	216-C-5, 216-C-5 Crib	Semi-Works Area	Crib	Y	Y	1	2184	52	42	16	16-20	In 1979 the crib surface was decontaminated and surface stabilized.	Process Condensate	Liquid	Unk.	Unk.
216-C-6	Inactive	Crib	216-C-6, 241-CX Crib	Semi-Works Area	Crib	Y	N	None	2184	52	42	16	16-20	The pipes were blanked and the crib surface stabilized with gravel.	Process Condensate	Liquid	Unk.	Unk.
216-C-7	Inactive	Crib	216-C-7, 216-C-7 Crib	Semi-Works Area	Crib	Y	N	None	2250	45	50	12	12-15	The site has been backfilled.	Contaminated Effluent	Liquid	Plutonium, Uranium	Nitric acid, boron, Cd, gadolinien
216-S-22	Inactive	Crib	216-S-22, 216-S-22 Crib	REDOX Area	Crib	Y	N	None	4615	130	36	10	10-15	The site has been backfilled and in 7/00, the vent risers were sealed.	The site provided subsurface liquid disposal for the 293-S building waste	Liquid	Tc-99, Sr-90, H3, U-238	Ag, As, Hg, NO ₃ , Hex Cr
216-S-26	Inactive	Crib	216-S-26, 216-S-19 Replacement Facility, 216-S-26 Crib	200 W Ponds Area	Crib	Y	N	None	1.5E+4	444	34	12	12-15	The crib was permanently isolated by filling manhole with concrete.	Contaminated Effluent	Liquid	Sr-90, Tc-99, H3, U-238	As, Hex Cr, Pb
216-Z-6	Inactive	Crib	216-Z-6, 231-W-4 Crib, 231-Z-6, 216-W-4, 231-W Crib, 216-Z-4, 216-Z-6 & 6A Crib	PFP Area	Crib	Y	Y	1-2	2245	74	31	8	8-15	All of the aboveground piping was removed and the site was surface stabilized in 1990.	Contaminated Effluent	Liquid	Am-241, Cs-137, Co-60, Sr-90, H3	PCB Arochlor 1254, Se
600-262	Inactive	Crib	600-262, West Lake Test Crib	200 E Ponds Area	Test Crib and Wells	N	N	None	4	2	2	2	2-15	None	Test Site	Liquid	Sr-85	Calcium nitrate

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200 CP	Inactive	Depression/Pit (nonspecific)	200 CP, 200 Area Construction Pit, 200 Area Construction Waste Site, Hanford Site Gravel Pit 29	200 E Admin Area	Depression/Pit	N	N	None	7.5E+5	1500	500	20	0-1 (spotty)	Believed that a portion of the old gravel pit has been paved over for the parking lot for the 2704 HV building.	Construction	Solid	None	Unk.
200-E PD	Active	Ditch	200-E PD 200-E Powerhouse Ditch, 200 East Powerhouse Pond	Semi-Works/ Area, PUREX Area	Ditch	Y	Y	2	1.3E+5	2666	50	6	6-8	The contaminated portion of the ditch was backfilled, surface stabilized, and the stabilized portion of the ditch was replaced with 366 ft of new underground pipeline.	Contaminated Effluent	Liquid	Radiological animal feces and windblown specs from nearby contaminated area.	Unk.
216-A-34	Inactive	Ditch	216-A-34, 216-A-34 Ditch, 216-A-34 Crib	200 E Ponds Area	Ditch	Y	Y	1-2	8400	280	30	6	6-15	The pipeline to the ditch was valved out and the ditch was backfilled. In 1990 the site was surface stabilized.	Cooling Water	Liquid	U-238, the site contains less than 1 Ci total beta activity	As, Mn
216-B-2-1	Inactive	Ditch	216-B-2-1, 216-B-1, B Swamp Ditch, 216-B-2, B Ditch, 216-B-2W	Solid Waste Area	Ditch	Y	Y	2	5.3E+4	3500	15	6	6-10	The site was backfilled in 1964, followed by a covering with a weed barrier as well as a layer of sand and gravel in 1973.	Coil Leak/ Effluent Release	Liquid	Cs-137, Sr-90	Ba, Pb, Hg, Ni, Ag, As
216-B-2-2	Inactive	Ditch	216-B-2-2, 216-B-2-2W, 216-B-1 Ditch	Solid Waste Area	Ditch	Y	Y	1-2	5.3E+4	3500	15	6	6-10	The entire ditch was backfilled in 1970 following an UPR. In 1971, after contaminated vegetation was found growing, a biobarrier was laid over the first 730 m.	Contaminated Effluent	Liquid	Cs-137, Sr-90	Ba, Pb, Hg, Ni, Ag, As
216-B-2-3	Inactive	Ditch	216-B-2-3, B Pond Ditch, B Swamp Ditch, 216-B-2-3W	Solid Waste Area	Ditch	N	Y	1-2	8.E+4	4000	20	6	6-10	The site was surface stabilized in 1987.	Contaminated Effluent	Liquid	Cs-137, Sr-90	Ba, Pb, Hg, Ni, Ag, As
216-B-3-1	Inactive	Ditch	216-B-3-1, B Swamp Ditch, 216-B-2, 216-B-3 Ditch, 216-B-2E	200 E Ponds Area	Ditch	Y	Y	1-2	1.2 E+5	3200	36	6	6-10	The unit was backfilled in 1964. In 1984 the site was covered with sheets of plastic, sand and gravel to provide a weed barrier.	Contaminated Effluent	Liquid	Cs-137 and a cooling leak in a process cooling tank in PUREX put an estimated 2,500 Ci of fission products into the ditch	As, Ba, Cd, Pb, Se, Hg, Hex Cr
216-B-3-2	Inactive	Ditch	216-B-3-2, 216-B Ditch, 216-B-1 Ditch, B Swamp Ditch, 216-B-2-2E	200 E Ponds Area	Ditch	Y	Y	1-2	5.6E+4	3700	15	6	6-10	The ditch was surface stabilized in 1984.	Contaminated Effluent	Liquid	Cs-137 and in 1970 a maximum dose rate of 450 mr/h measured at the head of the ditch.	As, Ba, Cd, Pb, Se, Hg, Hex Cr
216-B-3-3	Inactive	Ditch	216-B-3-3, B Swamp Ditch, 216-B-3-3 Ditch	200 E Ponds Area	Ditch	Y	Y	1-2	7.4E+4	3700	20	6	6-10	The site was surface stabilized in 1994. The underground pipeline from the Diverter Station to the 216-B-3-3 ditch was cut and filled with concrete.	Contaminated Effluent	Liquid	Cs-137	As, Ba, Cd, Pb, Se, Hg, Hex Cr
216-S-16D	Inactive	Ditch	216-S-16D, 202-S Swamp (New) and Ditch, 202-S Swamp #1, REDOX Pond #2, 216-2-24 Ditch	200 W Ponds Area	Ditch	Y	Y	1-2	6800	1700	4	3	3-6	The ditch has been backfilled and surface stabilized.	Contaminated Effluent	Liquid	Unk.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
CTFN 2703-E	Inactive	Drain/Tile field	CTFN 2703-E, 200-E Chemical Drain Field, Chemical Tile Field North of 2703-E	200 E Admin Area	Drain/Tile Field	N	N	None	2.4E+4	155	155	6	6-10	None	Liquid disposal	Liquid	Unk.	Unk.
200-E-1	Inactive	Dumping Area	200-E-1, 284-E Landfill	200 E Admin Area	Dumping Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-6	A concrete pad is located where the landfill was supposed to be located.	Landfill	Solid	None	Asbestos
200-E-110	Inactive	Dumping Area	200-E-110, Contaminated Tumbleweed Dump Site	200 E Ponds Area	Dumping Area	N	N	None	5046	87	58	Unk.	0-1 (spotty)	In 1999, the bulk of the tumbleweeds were removed, leaving only fragments.	Vegetation (tumbleweeds)	Solid	Contaminated Vegetation	None
200-E-13	Inactive	Dumping Area	200-E-13, Rubble Piles from RCRA General Inspection #200EFY95 Item #7	ILAW Area	Dumping Area	N	N	None	1.4E+5	Irr.	Irr.	Unk.	0-1 (spotty)	None	Dumping Area	Solid	None	Inert construction debris
200-E-46	Inactive	Dumping Area	200-E-46, RCRA Permit General Inspection #200EFY96 Item #3	200 E Admin Area	Dumping Area	N	N	None	8.1E+4	492	164	Unk.	0-1 (spotty)	Some wastes have been removed from the site an aerosol can, a transformer core, and a gallon can containing a tar-like substance.	Dumping Area	Solid and Liquid	None	Unk.
200-W-101	Inactive	Dumping Area	200-W-101, Contaminated Material West of 216-S-12 Crib	REDOX Area	Dumping Area	N	N	None	800	40	20	Unk.	0-1	None	Dumping Area	Solid	Unk.	Minor debris
200-W-11	Inactive	Dumping Area	200-W-11, Concrete Foundation South of 241-S, S-Farm Foundation and Dump Site	200 W Ponds Area	Dumping Area	N	N	None	1.2E+5	Irr.	Irr.	Unk.	0-1 (spotty)	None	Unk.	Solid and Liquid	None	Paint, solvent
200-W-12	Inactive	Dumping Area	200-W-12, 201-W Soil Mound and Plastic Pipe	REDOX Area	Dumping Area	N	N	None	72	12	6	Unk.	0-3	None	Equipment Testing	Solid and Liquid	None	Unk.
200-W-3	Inactive	Dumping Area	200-W-3, 2713-W North Parking Lot, 220-W-1	T Plant Area	Dumping Area	N	N	None	1.5E+5	300	500	Unk.	0-3 (spotty)	None	Unk.	Liquid	None	PCB's, lead, xylene, and petroleum hydrocarbons
200-W-33	Inactive	Dumping Area	200-W-33, Solid Waste Dumping Area, Debris near 609 gate	WM Area	Dumping Area	N	N	None	5.7E+5	804	705	Unk.	0-3 (spotty)	None	Dumping Area	Solid and Liquid	None	Oil substance, burn residue
200-W-55	Inactive	Dumping Area	200-W-55, Dumping Area North of 231-Z	T Farm Area	Dumping Area	N	N	None	3.0E+4	None	10	Unk.	0-1 (spotty)	A radiological survey was done 1991 and no contamination was found.	Dumping Area	Solid	None	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-W-6	Inactive	Dumping Area	200-W-6, 200-W Painter Shop paint solvent disposal area	T Plant Area	Dumping Area	N	N	None	2948	Irr.	Irr.	Unk.	0-15 (spotty)	None	Liquid Disposal	Liquid	None	Paint solvents
200-W-92	Inactive	Dumping Area	200-W-92, Contaminated Mound of Soil and Debris, Soil Mound West of 241-TY Tank Farm	T Farm Area	Dumping Area	N	Y	1-2	2400	80	30	Unk.	5 ft above ground	The site was surface stabilized with clean gravel in 4/07.	Dumping Area	Solid	Misc. trash and debris with maximum readings of 1,600,000 disintegrations per 100 sq. cm of beta gamma and 14,000 disintegrations per 100 sq. cm of alpha in May 2001.	Misc. trash and debris
600-218	Inactive	Dumping Area	600-218, H-61-H Anti-Aircraft Artillery Site Dumping Area	W. 200 W Area	Dumping Area	N	N	None	1.6E+4	243	67	Unk.	0-3 (spotty)	None	Dumping Area	Solid and Liquid	None	Oil and paint, misc. trash and construction debris
600-220	Inactive	Dumping Area	600-220, H-51 Anti-Aircraft Artillery Site Dumping Area	S.W. 200 W Ponds Area	Dumping Area	N	N	None	3.5E+5	647	545	Unk.	0-1 (spotty)	None	Dumping Area	Solid	None	Asbestos, misc. trash and construction debris
600-226	Inactive	Dumping Area	600-226, Gun Site H-42 Dumping Area	S. NRDWL/B C Controlled Area	Dumping Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1 (spotty)	None	Dumping Area	Solid	None	Misc. construction debris
600-228	Inactive	Dumping Area	600-228, H-40 Gun Site Dumping Area	NRDWL/B C Controlled Area	Dumping Area	N	N	None	1552	39	39	Unk.	0-2 (spotty)	None	Dumping Area	Solid and Liquid	None	Misc. construction debris, possible lead paint
600-281	Inactive	Dumping Area	600-281, Scattered Debris South of Army Loop Road	S. NRDWL/B C Controlled Area	Dumping Area	N	N	None	Unk.	Unk.	Unk.	Unk.	0-1 (spotty)	In February 2007, the three compressed gas cylinders were removed from the area. The cylinders previously contained argon, but were confirmed to be empty.	Dumping Area	Solid	None	Demolition and inert waste, asbestos
600-38	Inactive	Dumping Area	600-38, Railroad Siding Susie, 600-25, Susie Junction	W. 200 E Ponds Area	Dumping Area	N	N	None	3.6E+6	Irr.	Irr.	Unk.	0-3 (spotty)	Most of the trash, including the drums, had been removed by 1996.	Dumping Area	Solid and Liquid	None	Misc. debris, demolition and inert waste, asbestos, petroleum hydrocarbon
600-40	Inactive	Dumping Area	600-40, West of West Lake Dumping Area	200 E Ponds Area	Dumping Area	N	N	None	5242	Irr.	Irr.	Unk.	0-1 (spotty)	None	Dumping Area	Solid	None	Misc. debris, demolition and inert waste
600-51	Inactive	Dumping Area	600-51, Chemical Dump, Pile of White Powder	N. 200 E Ponds Area	Dumping Area	N	N	None	15	3	5	Unk.	0-1	A sample of this material was analyzed with the HAZCAT field analysis kit. The bulk of this material appears to be a sodium compound. The sodium compound has been removed.	Dumping Area	Solid	None	Unk.
600-65	Inactive	Dumping Area	600-65, 607 Batch Plant Drum Site	N. ERDF Area	Dumping Area	N	N	None	100	10	10	Unk.	0-3 (spotty)	In 2001, the listed materials were not present at this site.	Dumping Area	Solid and Liquid	None	Misc. debris, petroleum hydrocarbons

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
600-66	Inactive	Dumping Area	600-66, 607 Batch Plant Orphan Drums	ERDF Area	Dumping Area	N	N	None	25	5	5	Unk.	0-3 (spotty)	None	Dumping Area	Solid and Liquid	None	Unk. liquids
600-70	Inactive	Dumping Area	600-70, Solid Waste Management Unit (SWMU) #2 - Miscellaneous Solid Waste	REDOX Area	Dumping Area	N	N	None	1.3E+6	1394	918	Unk.	0-3 (spotty)	None	Dumping Area	Solid and Liquid	None	Misc. debris, demolition and inert waste, asbestos, petroleum hydrocarbon
200-W-14	Inactive	Dumping Area	200-W-14, 200 West Heavy Equipment Storage Area	T Plant Area	Storage Yard	N	Y	1-2	2400	80	30	2	0-6 (spotty)	None	Parking Area	Liquid	None	Petroleum
200-E-101	Active	Experiment/ Test Site	200-E-101, 200 East Deep Lysimeter Site	BC Controlled Area	Experiment /Test Site	N	N	None	591	59	10	Unk.	58-60	The open bottom pit was decommissioned in 1994, the access pipes and cables were removed.	Test Site	Unk.	Short-lived isotope tracers	Lead bricks
200-W-75	Unknown	Experiment/ Test Site	200-W-75, Radiological Logging System (RLS) Calibration Silos	REDOX Area	Experiment/ Test Site	N	Y	0.05	128	None	4	8	0-8	The site has been surface stabilized.	Contaminated Calibration Silos	Solid	Cobalt-60, Strontium-90, Ruthenium-106, Cerium-144	None
200-W-64	Inactive	Foundation	200-W-64, 2724-W Contaminated Laundry Facility Building Foundation	T Plant Area	Foundation	N	N	None	1.4E+4	138	105	Unk.	0-1	The laundry facility building was demolished in 1995, the foundation remains.	Contaminated Foundation	Liquid	Radiological contamination from soiled protective work clothing; There was 9000 dpm beta/gamma found in the Fixed Contamination Area in March 1998.	None
600-275	Inactive	Foundation	600-275, 218-W-14, Igloo Site, Army Ammo Site, Regulated Storage Area	W. 200 W Area	Storage Yard	N	N	None	3.3E+6	2050	1625	Unk.	0-6 (spotty)	The bunkers, guard house and fence have been removed. The stored scrap has been removed.	Leak/ Spill	Solid and Liquid	Plutonium scrap	Carbon tetrachloride
OCSA	Inactive	Foundation	OCSA, Old Central Shop Area, Central Shop Area	200 E Ponds Area	Foundations	N	N	None	1.1E+7	Irr.	Irr.	Unk.	0-2 (spotty)	None	Former Construction Staging Area With Fuel Tanks	Solid and Liquid	None	Misc. debris, demolition and inert waste, petroleum hydrocarbons
216-S-4	Inactive	French Drain	216-S-4, 216-S-7, 216-S-4 Sump or Crib, UN-216-W-1	200 W Ponds Area	French Drain	Y	Y	1-2	11	None	3	22	22-30	The site was surface stabilized with clean backfill in 1991.	Contaminated Effluent	Liquid	Tc-99, Sr-90, H3, U-238	Ag, As, Hg, NO3, Hex Cr
600-37	Inactive	French Drain	600-37, Browns Wells, Johnson's Wells	ERDF Area	Tanks and French drains	N	N	None	70	10	7	16	16-20	None	Unk./ Testing	Liquid	Unk.	Unk.
600-222	Inactive	Military Compound	600-222, H-60 Gun Site	W. 200 W Area	Military Compound	N	N	None	3.8E+5	695	548	Unk.	0-1 (spotty)	None	Abandoned Military Site	Solid and Liquid	None	Battery and oil wastes

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

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																	Radiological	Non-Radiological
200-W-1	Inactive	Mud Pit	200-W-1, REDOX Mud Pit West	REDOX Area	Mud Pit	N	N	None	5000	100	50	Unk.	0-3	None	Equipment Decontamination	Liquid	Unk.	Unk.
200-E-58	Inactive	Neutralization Tank	200-E-58, 216-A-5 Neutralization Tank, 216-A-5 NU, Tank A5, IMUST, Inactive Miscellaneous Underground Storage Tank	PUREX Area	Neutralization Tank	Y	N	None	93	None	11	16	0-20	The site has been stabilized.	Contaminated Effluent	Liquid	Unk.	Unk.
270-E-1	Inactive	Neutralization Tank	270-E-1, 270-E CNT, 270-E Condensate Neutralization Tank, 216-ER-1, IMUST, Inactive Miscellaneous Underground Storage Tank	B Plant Area	Neutralization Tank	N	N	None	77	None	9	9	0-20	The stabilization of surrounding sites led to the URM posting.	Contaminated Effluent	Liquid	U-238, Sr-90, Cs-137, Pu, beta-emitters	Uranium, As
216-C-9	Inactive	Pond	216-C-9, 216-C-9 Pond, 216-C-7 Swamp, Former 221-C Canyon Excavation, 216-C-9 Swamp, Semi-Works Swamp, 216-C-9 C Canyon Excavation Semiworks Swamp	Semi-Works Area	Pond	Y	Y	3	2.9E+5	1257	230	8	8-11	The area was backfilled and surface stabilized in 1989.	Cooling Water/ Solid Waste Burial	Solid and Liquid	Unk.	Unk.
216-S-19	Inactive	Pond	216-S-19, 222-S Lab Swamp, 216-SL-1, REDOX Lab Swamp, 216-S-19 Pond	200 W Ponds Area	Pond	N	Y	1-2 ft	1.5E+5	Irr.	Irr.	Irr.	0-3	The wastes were rerouted to the 216-S-26 Crib. Over time, the beta/gamma radioactivity has decayed until presently there is no activity detectable with radiation monitoring field instruments.	Liquid Disposal	Liquid	In 1983, maximum field radiological readings from core sample were 300 counts per minute near the inlet pipe, at a depth of 8 to 24 inches.	Unk.
216-T-4A	Inactive	Pond	216-T-4A, 216-T-4 Swamp, 216-T-4-1 (P), 216-T-4-1 Pond	WM Area	Pond	Y	Y	2	1.1E+6	1800	600	0	0-3	The pond has been exhumed, backfilled, interim stabilized and revegetated.	Steam Condensate/ Cooling Water	Liquid	Unk.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-W-21	Inactive	Pump Station	200-W-21, 204-T Unloading Station, T-Plant Waste Railcar Unloading Facility, Unloading Station 1 and Unloading Station 2	T Plant Area	Pump Station/Railroad	N	Y	0.5	1959	87	23	5	0-6	The area was partially surface stabilized in 1989 by removing all of the equipment. In 1996 the platform structures, storage structures and light fixtures were removed.	Leak/ Spill	Liquid	Unk.	Unk.
200-W-82	Inactive	Pump Station/Product Piping	200-W-82, Risers East of 216-TY-201 and 216-T-26, 216-T-27, and 216-T-28 Cribs, Crib Unloading Station	T Farm Area	Pump Station/Product Piping	N	N	None	800	40	20	5	0-6	None	Contaminated Foundation	Solid and Liquid	Unk.	Unk.
231-W-151	Inactive	Receiving Vault	231-W-151, 231-W-151 Vault, 231-W-151-001 (Tank), 231-W-151-002 (Tank), 231-W-151 Sump, 231-Z-151 Sump, IMUST, Inactive Miscellaneous Underground Storage Tank (See Subsites)	PFP Area	Receiving Vault	N	N	None	289	17	17	19	0-19	In 2003, the vault was covered with a foam seal to prevent intrusion and potential contamination spreads.	Contaminated effluent	Liquid and sludge	Alpha contamination was discovered on the concrete surface, 210,000 disintegrations per minute. Plutonium, Cs137, Sr89, Sr90, uranium, americium-241 in tank liquids and sludge. 228 grams of plutonium in the sludge within tank 231-W-151-002.	Unk
207-B	Inactive	Retention Basin	207-B, B Plant Retention Basin, 207-B Retention Basin	Solid Waste Area	Retention Basin	N	N	None	3.0E+4	246	123	7	6-9	In 1997 the 207-B inlet valve box and outlet drains were isolated by filling with concrete. In 2005 an area of reoccurring contamination was covered with a bio barrier and clean gravel.	Contaminated Effluent	Liquid	Cs-137, Sr-90, U-238, Tc-99. The maximum contamination reading recorded was 480,000 dpm of beta/gamma contamination in December 1999.	As, Cd, Pb, Hg, Se, PCB Arochlor 1254
207-SL	Active	Retention Basin	207-SL, 222-S Retention Basin, REDOX Lab Retention Basin, 207-SL Retention Basin	REDOX Area	Retention Basin	N	N	None	2500	50	50	14	14-15	None	Contaminated Effluent	Liquid	Site received low-level rad waste.	Unk.
216-A-40	Inactive	Retention Basin	216-A-40 Retention Basin, 216-A-39 Crib, 216-A-39 Trench	PUREX Area	Retention Basin	Y	Y	1-2	8000	400	20	12	12-20	The site was stabilized in 1994, contaminated soil and bladders were consolidated into the east side of the trench. The basin was backfilled with clean material.	Effluent Discharge	Liquid	Cs-137, Sr-90, U-238, Tc-99; rad survey reading of 50 cpm in April 1998.	As, Cd, Pb, Hg, Se, PCB Arochlor 1254

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
216-A-42	Inactive	Retention Basin	216-A-42, 207-AA Retention Basin, 216-A-42 Trench, 216-A-42 Retention Basin	PUREX Area	Retention Basin	Y	N	None	1.0E+4	342	30	13	13-20	In 7/01 the area was leveled and backfilled, radiological surveys of the surface are performed annually.	Steam Condensate/ Cooling Water	Liquid	Cs-137, Sr-90, U-238, Tc-99; Contamination levels of 40,000 cpm were found inside the fenced basin area and 3,000 cpm was found outside the fence and on the adjacent road in November 1984.	As, Cd, Pb, Hg, Se, PCB 1254
216-B-59B	Inactive	Retention Basin	216-B-59B, 216-B-59 Retention Basin	B Plant Area	Retention Basin	Y	N	None	1.6E+4	307	52	10	10-12	The 216-B-59B retention basin was built on top of the trench. In 1997 the discharge valve and extension handle were removed and the site was filled with concrete.	Cooling Water	Liquid	Cs-137, Sr-90, U-238, Tc-99	As, Cd, Pb, Hg, Se, PCB 1254
600 OCL	Inactive	Sanitary Landfill	600 OCL, 600 Area Original Central Landfill, Original CLF	NRDWL/B C Controlled Area	Sanitary Landfill	Y	N	None	1.5E+4	300	50	15	0-15	The site has been backfilled to grade. Radiological surveys are performed on this site.	Dumping Area	Solid	1500 cpm beta gamma in test pit on June 5, 1988	Unk.
200-W-2	Inactive	Spoils Pile/Berm	200-W-2, REDOX Berms West	REDOX Area	Spoils Pile/Berm	N	N	None	2670	Irr.	Irr.	Unk.	0-3	None	Equipment Decontamination	Solid and Liquid	Unk.	Unk.
200-W-80	Inactive	Spoils Pile/Berm	200-W-80; Mound of Contaminated Soil Southwest of T Plant	T Plant Area	Spoils Pile/Berm	N	Y	1-2	2264	49	46	5	0-1	The mound of soil was flattened and the site was covered with clean gravel.	Soil Contamination	Solid	Unk.	None
200-E-43	Inactive	Storage	200-E-43, Tank Car Storage Area, Regulated Equipment Storage Area, TC-4 Spur Tank Car Storage Area	200 E Admin Area	Railroad	N	Y	1-2	3.5E+4	215	164	Unk.	0-2 (spotty)	The railcars have been removed, but the site is still posted URM.	Leak/ Spill	Liquid	Unk.	Unk.
216-A-18	Inactive	Trench	216-A-18, 216-A-18 Excavation, 216-A-18 Grave, 216-A-18 Sump, 216-A-18 Crib	200 E Ponds Area	Trench	Y	Y	1-2	6400	80	80	16	16-20	The site was deactivated by removing the over ground piping and backfilling. The site was surface stabilized in 1990.	Contaminated Effluent	Liquid	U-238	As, Mn, U
216-A-20	Inactive	Trench	216-A-20, 216-A-20 Test Hole, 216-A-20 Grave, 216-A-20 Sump, 216-A-20 Crib	200 E Ponds Area	Trench	Y	Y	1-2	625	25	25	15	15-25	The site was surface stabilized in 1990, in 4/07 more surface contamination was backfilled with clean dirt.	Contaminated Effluent	Liquid	U-238	As, Mn, U
216-B-59	Inactive	Trench	216-B-59, 216-B-58 Trench, 216-B-58 Ditch	B Plant Area	Trench	N	Y	1-2	8000	400	20	12	12-15	The 216-B-59B retention basin was built on top of the trench. In 1997 the discharge valve and extension handle were removed and the site was filled with concrete.	Cooling Water	Liquid	Unk.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
216-S-8	Inactive	Trench	216-S-8, Cold Aqueous Trench, Cold Aqueous Crib, 216-S-3, Unirradiated Uranium Waste Trench, Cold Aqueous Grave	REDOX Area	Trench	Y	Y	1-2	6000	100	60	25	25-30	The aboveground piping has been removed and the site has been backfilled. The surface was interim stabilized in 1994.	Contaminated Effluent	Liquid	Unk.	Uranium
216-T-20	Inactive	Trench	216-T-20, 216-TX-2, 216-T-20 Crib, 241-TX-155 Contaminated Acid Grave	T Farm Area	Trench	Y	N	None	484	22	22	4	4-6	The aboveground piping was removed and the unit backfilled.	Contaminated Effluent	Liquid	Unk.	Unk., Nitric acid
216-Z-4	Inactive	Trench	216-Z-4, 231-W-3 Pit, 231-W-3 Sump, 231-W-3 Crib, 216-Z-3, 216-Z-4 Crib	PFP Area	Trench	Y	Y	1-2	100	10	10	15	15-20	The site was backfilled in 1945 and interim stabilized in 1990.	Contaminated Effluent	Liquid	Am-241, Cs-137, Co-60, Sr-90, H3	PCB Aroclor-1254, Se
200-E-117	Inactive	Unplanned Release	200-E-117, Contamination Zone South of B Plant	B Plant Area	Above ground valves	N	N	None	100	10	10	Unk.	0-1	The area was surveyed and tumbleweeds were removed.	Unk.	Solid and Liquid	Area was surveyed and found to be contaminated with 800 cpm (direct) beta/gamma in September 2000.	None
UPR-200-W-96	Inactive	Unplanned Release	UPR-200-W-96, UN-216-W-4, 233-S Floor Overflow, 233-SA Floor Overflow	REDOX Area	Adjacent to Building	N	Y	1-2	1350	Irr.	Irr.	Unk.	0-6	The release site was covered with clean gravel and was eventually covered with an asphalt roadway.	Leak/ Spill	Liquid	Pu-239. 600-40,000 dpm in October 1975.	None
UPR-200-W-43	Inactive	Unplanned Release	UPR-200-W-43, Contaminated Blacktop East of 233-S, UN-200-W-43	REDOX Area	Blacktop	N	N	None	1197	35	35	Unk.	0-1	In 1957, 1200 sq ft of black top was posted as a Radiation Zone pending cleanup. No record of the cleanup activity has been found.	Windblown particulate	Solid	2000 dpm alpha on February 12, 1957.	None
UPR-200-E-54	Inactive	Unplanned Release	UPR-200-E-54, UN-200-E-54, Contamination Outside 225-B Doorway	B Plant Area	Building	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1	The door pad was decontaminated from 25 mR/h to 4,000 cpm. Remaining contamination was covered with plastic. The contaminated soil (0.028 m ³ [about one cubic foot]) was packaged for disposal. The contaminated concrete was removed and a new pad poured.	Leak/ Spill	Liquid	25 mR/h (direct) and 20,000 cpm smearable on July 20, 1977	Unk.
UPR-200-W-39	Inactive	Unplanned Release	UPR-200-W-39, UN-200-W-39, 224-U Buried Contamination Trench	U Plant Area	Building/ Disposal Trench	N	Y	1-2	500	50	10	Unk.	0-6	The soil affected by the release was moved to a nearby trench and covered with clean dirt. The buried contamination was released from radiation zone status in 6/72.	Leak/ Spill	Liquid	Less than 10 nCi/g Uranium	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-W-57	Inactive	Unplanned Release	UPR-200-W-57, UPR-200-E-120 (error in area number assignment), UN-200-W-57, 233-S Fire	REDOX Area	Building/Outlying Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1	In 1997, field crews began decontamination of 233-S Building; 2004 building was demolished.	Fire	Solid, Liquid	Plutonium. Alpha radiation measured at greater than 5 million dpm in the soot, ashes and in the air on November 6, 1963	Unk.
UPR-200-W-70	Inactive	Unplanned Release	UPR-200-W-70, Contamination Found at the 200 West Burning Ground East of Beloit Ave.	T Plant Area	Burn Pit/Roadway	N	Y	2-3	Unk.	Irr.	Irr.	Unk.	0-1	In 1973, fabro-film was sprayed on contaminated areas and a locked chained gate installed.	Dumping Area	Solid	5,000-50,000 cpm beta/gamma; 20,000 cpm to 30 mrad/h; 100,000 (250 mrad/h); alpha ranging from 5,000 to 200,000 dpm. Americium-plutonium contamination on sample from trench. All in 1973.	Unk.
200-E-29	Inactive	Unplanned Release	200-E-29, Unplanned Release From 241-ER-152 Diversion Box	B Plant Area	Diversion Box	N	Y	1-2	6.2E+4	315	197	Unk.	0-1 (spotty)	The site has been stabilized.	Biological Intrusion	Solid	7000 dpm - 300 mrem/h from mouse feces, urine, a mouse nest, several mouse carcasses and an ant hill in 1996; A backhoe engine compartment had 50 mR/h from mice nests in 1996; Radiation survey found 200 cpm above background where paint was cracked in September 2000.	None
UPR-200-W-51	Inactive	Unplanned Release	UPR-200-W-51, Release from 241-S Diversion Box, UN-200-W-51, UPR-200-W-52	S/U Farm Area	Diversion Box	N	N	None	5.2E+5	1723	300	Unk.	0-1 (spotty)	In 1958, contaminated areas were zoned off, gross contamination flushed with water. In 1992, two nearby SCAs were scraped and consolidated onto other existing nearby waste sites and into the 207-S Retention Basin. Some residual contamination from this UPR may have contributed to the contaminated soil in the nearby SCAs.	Diversion Box Release	Solid and Liquid	1 rad/h - 50 mrad/h; 4,000-5,000 cpm on September 12, 1958	Unk.
200-W-63	Inactive	Unplanned Release	200-W-63, Contaminated Concrete Pad	T Farm Area	Foundation	N	Y	1-2	6301	140	45	Unk.	0-1	The site has been surface stabilized.	Contaminated Foundation	Liquid	5000 - 300000 dpm beta/gamma and 3000 - 7000 alpha surveyed on December 5, 1997.	None
200-W-86	Inactive	Unplanned Release	200-W-86, Contamination Area Around Light Pole	T Plant Area	Outlying Area	N	Y	1-2	100	10	10	Unk.	0-1	In 12/01, the utility pole was removed and the area was covered with clean backfill. The area was downposted to URM.	Unk.	Solid, Liquid	Unk.	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-E-103	Inactive	Unplanned Release	200-E-103, Radiologically Controlled Area - South Side of PUREX, PUREX Stabilized Area, 202-A	PUREX Area	Outlying Area	N	Y	1-2	1.9E+5	Irr.	Irr.	Unk.	0-1 (spotty)	Unspecified interim stabilization on 1/4-2/4/99. Crushed rock placed on 3.7 a; 0.6 a not stabilized. The waste site was covered with gravel.	Contaminated Effluent	Liquid	Unk.	Unk.
200-E-107	Inactive	Unplanned Release	200-E-107, Contamination Area East of PUREX, PUREX E Field	PUREX Area	Outlying area	N	Y	1-2	4.3E+4	376	114	Unk.	0-1	The site has been stabilized.	Ventilation Particulate/ Windblown Particulate	Solid	Alpha contamination detected on motion detectors and aboveground electrical boxes in 2001	Unk.
200-E-115	Inactive	Unplanned Release	200-E-115; Contamination Area East of 241-C Tank Farm	WTP/A Farm Area	Outlying Area	N	Y	1-2	1320	40	33	Unk.	0-1 (spotty)	A biobarrier exists. In 1981, contaminated soil was removed and buried in a depression north of the 216-A-24 Crib and the site was released from radiological posting. In 01/01 contaminated vegetation was removed.	Unk.	Solid	Contaminated tumbleweed reading 350 counts per minute and small dried tumbleweeds reading 200 counts per minute in January 2001.	None
200-E-123	Inactive	Unplanned Release	200-E-123, Contamination Area South of 216-B-2 Stabilized Ditches	Solid Waste Area	Outlying Area	N	Y	1-2	344	23	15	Unk.	0-3	In 2001, the area was covered with clean backfill material and down posted to a URM.	Unk.	Solid and Liquid	Unk.	Unk.
200-E-125	Inactive	Unplanned Release	200-E-125, Contamination Area Northwest of 244-AR Building	PUREX Area	Outlying Area	N	N	None	326	22	15	Unk.	0-1	None	Unk.	Solid, Liquid	Unk.	None
200-E-129	Inactive	Unplanned Release	200-E-129, Stabilized Area on East Side of B Plant Railroad Cut	B Plant Area	Outlying Area	N	Y	1-2	240	20	12	Unk.	0-1	The site has been stabilized with gravel.	Unk.	Solid, Liquid	12,000 (max) dpm per 100 cm probe area convert to 2400 cpm (beta-gamma) in February 2001.	None
200-E-139	Inactive	Unplanned Release	200-E-139, Contamination Area North of C Farm	WTP/A Farm Area	Outlying Area	N	Y	1-2	8.4E+4	853	98	Unk.	0-1 (spotty)	Contaminated tumbleweeds were removed in 2003; area on south side of 8th St. has been covered with a biobarrier and gravel.	Unk.	Solid	300-4100 CPM Beta-Gamma in 2004.	None
200-E-53	Inactive	Unplanned Release	200-E-53, Contaminated Zone Adjacent to 218-E-12B and 218-E-8, Over ground Storage Area, Above Ground Storage Area	Solid Waste Area	Outlying Area	N	N	None	1.1E+5	410	262	Unk.	0-1 (spotty)	Four small spots of contamination found fairly distant from the original contamination zone were decontaminated.	Biological Intrusion/Animal Feces	Solid	600 cpm - 30 mrem/h beta (1.5 mrem/h gamma) between January - September 1987; 75000 dpm found in October 1993.	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-W-106	Inactive	Unplanned Release	200-W-106, Soil Contamination Area Adjacent to 200-W-55	T Farm Area	Outlying Area	N	N	None	3551	67	53	Unk.	0-1 (spotty)	None	Soil Contamination	Solid	3600 cpm. At least 15 separate, small contaminated areas were found; contamination levels larger at depth. 300 cpm surface reading rose to 7600 cpm at depth of 7.6 cm (3 in.). Additional investigations found majority of contamination to be within 15 cm (6 in.) of surface. Max reading 20,100 cpm found at 10 cm (4 in.) depth found on February 13, 2003.	Unk.
200-W-53	Inactive	Unplanned Release	200-W-53, UPR-200-W-166, UN-216-W-31	T Farm Area	Outlying Area	N	Y	Unk.	1.6E+5	394	394	Unk.	0-1 (spotty)	Soil contamination located east of the 207-T Basins was scraped up and placed inside the 207-T Retention Basin in 1996. Basins were completely backfilled and covered with clean dirt. The scraped area is currently posted as an URM.	Windblown Particulate	Solid	Unk.	None
200-W-54	Inactive	Unplanned Release	200-W-54, Contamination Migration from 241-SX Tank Farm	S/U Farm Area/ REDOX Area	Outlying Area	N	N	None	1.9E+5	574	330	Unk.	0-1 (spotty)	None	Windblown Particulate	Solid	Contamination migration from S/SX Tank Farm; 650 - 20000 cpm survey in November 1998.	None
200-W-90	Inactive	Unplanned Release	200-W-90, Underground Radioactive Material Areas posted along 23rd Street in 200 West Area	T Farm Area	Outlying Area	N	N	None	200	20	10	Unk.	0-1	None	Unk.	Solid, Liquid	Unk.	None
UPR-200-E-101	Inactive	Unplanned Release	UPR-200-E-101, UN-216-E-30, UN-216-E-101, UN-200-E-101, Radioactive Spill Near 242-B Evaporator	B Farm Area	Outlying Area	N	Y	1-2	3360	84	40	Unk.	0-1	The site was stabilized in 1994.	Windblown Particulate/ Vegetation	Solid	Tumbleweeds reading 1,000 cpm beta-gamma in September 1986	None
UPR-200-E-143	Inactive	Unplanned Release	UPR-200-E-143, Contamination Adjacent to 244-A Lift Station, UN-216-E-43	PUREX Area	Outlying Area	N	N	None	5.0E+4	Unk.	Unk.	Unk.	0-1 (spotty)	In 1985 scraped/removed contaminated soil.	Windblown Particulate/ Biological Intrusion	Solid	Rad survey readings of 900 mR/h in October 1990. Analytical results detected Cs-137.	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-E-28	Inactive	Unplanned Release	UPR-200-E-28, Contamination Release Inside the PUREX Exclusion Area, UN-200-E-28	PUREX Area	Outlying Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1 (spotty)	Control and cleanup was executed promptly.	Leak/ Spill	Solid, Liquid	Unk.	Unk.
UPR-200-E-37	Inactive	Unplanned Release	UPR-200-E-37, Contamination East of Hot Semi-Works, UN-200-E-37, UN-216-E-37	Semi-Works Area	Outlying Area	N	N	None	Unk.	600	Irr.	Unk.	0-1 (spotty)	A large contamination area located east and south of Semi-Works, was released in 1989. The contaminated soil was scraped off the surface and removed to the 218-C-9 burial trench. Ninety-six, 1.27 cm (1/2 in.) deep soil samples were collected from the area after it was scraped and transported to lab for analysis. Surface was surveyed with MSCM Tractor. (WIDS)	Windblown particulate	Solid	Unk.	None
UPR-200-E-50	Inactive	Unplanned Release	UPR-200-E-50, Soil Contamination at the Over ground Equipment Storage Yard, UN-200-E-50	WTP/A Farm Area	Outlying Area	N	N	None	3.4E+4	450	75	Unk.	0-1 (spotty)	In 1974, some decontamination was done removing some radiological contamination specks and tumbleweeds. Some digging to remove contamination went to depth of 1 ft below surface. Equipment that became contaminated was kept in storage and monitored.	Windblown Particulate/ Vegetation	Solid	Rad survey readings on pumps were 250 Rad/h with 300 mrem/h measured on soil under pumps. Particle contamination readings ranged from 3,000 - 100,000 cpm on September 24, 1974.	None
UPR-200-E-52	Inactive	Unplanned Release	UPR-200-E-52, UN-200-E-52, Contamination Spread Outside the North Side of 221-B	B Plant Area	Outlying Area	N	N	None	100	25	4	Unk.	0-3	Precipitation infiltrating into the railroad berm continues to release radionuclides trapped within the soil. Relief valve and discharge line from relief valve to building's exterior were replaced. A total of 4 ft ³ of contaminated dirt was packaged and sent to burial ground. Exterior of building was cleaned, painted and remarked.	Pipeline Release	Liquid	Radiological survey readings of 20000 - 100000 cpm surveyed in August 1975	Unk.
UPR-200-E-55	Inactive	Unplanned Release	UPR-200-E-55, UN-200-E-55, Contamination Spread South of B Plant	B Plant Area	Outlying Area	N	N	None	1.0E+4	100	100	Unk.	0-1 (spotty)	In 1979, the area was isolated as a temporary zone, cleaned up, and released.	Windblown particulate	Solid	Beta/gamma particles reading 5,000-30,000 cpm on April 27, 1979	None
UPR-200-E-62	Inactive	Unplanned Release	UPR-200-E-62, Transportation Spill near 200-E Burning Ground, UN-216-E-62, UN-200-E-62	Solid Waste Area	Outlying Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1	The ground contamination was picked up, placed in barrels, and removed to the burial ground. The release was cleaned up to background levels and was released from area posting on 3/22/82.	Leak/ Spill	Liquid	350 mrad/h beta/gamma in 1982	None
UPR-200-E-98	Inactive	Unplanned Release	UPR-200-E-98, UN-216-E-26, Ground Contamination East of C Plant (Hot Semi Works), UN-200-E-98	Semi-Works Area	Outlying Area	N	Y	1-2	Unk.	Irr.	Irr.	Unk.	0-1 (spotty)	The 2910C Stack was demolished and currently lies in a burial trench adjacent to where it stood. Site is within a large surface stabilized site known as 200-E-41.	Windblown particulate	Solid	Sr-90	None

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																	Radiological	Non-Radiological
UPR-200-W-101	Inactive	Unplanned Release	UPR-200-W-101, UN-216-W-9, 221-U Acid Spill R-1 through R-9, UN-200-W-101	U Plant Area	Outlying Area	N	Y	1-2	5851	90	65	3	0-3	The original tar surface over an old radioactive spill area had decomposed and allowed weeds to grow and bring contamination to the surface. The resealed area extended from section R-1 through section R-9 and out to the road east of the building. Weeds were removed, soil sterilizing agent was sprayed over the ground, and a hot tar base was applied and capped with fine mesh chipped gravel.	Leak/ Spill	Liquid	1 Ci of fission products was released; acid contained 1 Ci of Sr-90. 300 cpm detected in September 1976	Acid
UPR-200-W-116	Inactive	Unplanned Release	UPR-200-W-116, UN-216-W-26, Ground Contamination North of 202-S, UN-200-W-116	REDOX Area	Outlying Area	N	Y	1-2	8.4E+4	364	230	Unk.	0-1 (spotty)	In 1974, bladed area into windrows; 1993 interim stabilized; consolidated contaminated soil next to REDOX railroad cut soil berm. Interim stabilized a portion of chemical spur RR tracks and a section along west perimeter of posted area with 46-61 cm (18-24 in.) of uncontaminated soil.	Windblown particulate	Solid	Ground contamination levels up to 20,000 cpm in 1974; beta/gamma ranging from 200 - 3000 cpm in 1981.	None
UPR-200-W-165	Inactive	Unplanned Release	UPR-200-W-165, Contamination Area East of 241-S, UN-216-W-30	S/U Farm Area	Outlying Area	N	N	None	1.4E+5	377	377	Unk.	0-1 (spotty)	The stabilization effort divided the contaminated area into two parts. The north part (north of the northern-most steam line) was done first and was completed in July 1992. The southern portion (the area between the two steam lines) became larger during the stabilization effort as more and deeper contamination was identified during the initial scraping. Some of the contamination was placed on 216-S-9 Crib. The 216-S-9 Crib and the contaminated soil were covered with clean dirt and reposted URM in July 1992. Approximately 460 m ² (5,000 ft ²) was scraped down to 46 cm (18 in.) below the original surface and released from radiological controls. Soil samples were collected and radiological surveys were done prior to releasing areas from radiological control. Because of accessibility problems near the steam line, the remaining contamination was consolidated and posted as an SCA and left to be addressed at a later date. This area was completed in 1997 when the inactive steam line was removed. The remaining contamination was pushed into the 216-S-18 Trench and surface stabilized. A total of 45 sample points were randomly selected from the northern portion and 23 sample points were randomly selected from the southern portion of the area. After collecting soil samples of the scraped area, the site was removed from radiological control.	Windblown particulate	Solid	200 cpm to 45 mrad/h (original speck contamination) in 1995	None
UPR-200-W-23	Inactive	Unplanned Release	UPR-200-W-23, Waste Box Fire at 234-5Z, UN-200-W-23	PFP Area	Outlying Area	N	Y	1-2	302	17	17	Unk.	0-1	Following the release in 1953, the contaminated area was covered with blacktop and posted with "DANGER - DO NOT EXCAVATE IN THIS AREA WITHOUT SWP PERMISSION" signs.	Fire	Solid	Plutonium	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

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																	Radiological	Non-Radiological
UPR-600-21	Inactive	Unplanned Release	UPR-600-21, Contamination found Northeast of 200 East Area, UN-216-E-31	200 E Ponds Area	Outlying Area	N	N	None	Unk.	Irr.	Irr.	Unk.	0-1 (spotty)	Majority removed over the years by buckets and shovels; some decay below detection levels.	Vegetation (tumble-weeds)	Solid	Unk.	None
UPR-200-E-89	Inactive	Unplanned Release	UPR-200-E-89, UN-216-E-17, UN-200-E-89, Contamination Migration to the North, East & West of BX-BY Tank Farms	B Farm Area	Outlying Area/Other (concrete pad)	N	Y	1-2	1.3E+5	Irr.	Irr.	Unk.	0-1 (spotty)	In 1991, the contaminated area was scraped; removed soil was placed on top of the 216-B-43 through 216-B-50 Cribs and was surface stabilized with a cover of clean soil. In the scraped area, 83 soil samples were collected and screened for total alpha and total beta; all samples were below release limits.	Windblown Particulate/Vegetation	Solid	Beta and gamma contamination 500-2,000 cpm were detected at the site. Beta/gamma contamination was detected on the sides of the Baltimore Ave. roadway in 1978.	Unk.
200-E-2	Inactive	Unplanned Release	200-E-2, Soil Stains at the 2101-M SW Parking Lot, MO-234 parking Lot	200 E Admin Area	Parking Lot	N	N	None	1.0E+4	100	100	Unk.	0-6	Site soil was taken and tested.	Oil for dust abatement	Liquid	None	PCBs, used oil for dust abatement, heavy metals.
UPR-200-E-35	Inactive	Unplanned Release	UPR-200-E-35, Buried Contaminated Pipe, UN-218-E-1, 218-E-13	PUREX Area	Pipeline	Y	N	None	1840	46	40	Unk.	8-10	The pieces of concrete were left in the excavation hole and buried.	Pipeline Release	Solid	Less than 1 Ci fission products reported in August 1966	Unk.
UPR-200-E-64	Inactive	Unplanned Release	UPR-200-E-64, Radioactive Soil and Ant Hills, UN-200-E-64, UN-216-E-36	B Plant Area	Pipeline	N	Y	2	8.7E+4	Irr.	Irr.	0	0-1 (spotty)	Some attempts were made to clean up area but were discontinued. In March, 2003 the contaminated area was surface stabilized with clean backfill material.	Pipeline Release/Windblown Particulate/Biological Intrusion	Liquid	Sr-90, Cs-137; 60,000 cpm on soil and ant hills in May 1987; 30 mrad/h found on a pipe in 1985.	None
UPR-200-W-61	Inactive	Unplanned Release	UPR-200-W-61, REDOX Ground Contamination, UN-200-W-61	REDOX Area	Pipeline/Outlying Area	N	N	None	199	14	14	Unk.	0-15	In 1966, the area was barricaded and contaminated walkways were washed down and released from radiation zone status; top 6 in. (15.24 cm) of contaminated soil was removed.	Leak/ Spill	Liquid	Unk.	Unk.
200-E-124	Inactive	Unplanned Release	200-E-124, URM on East Side of 275-EA	PUREX Area	Railroad	N	Y	1	3169	210	15	Unk.	0-2	The site was stabilized with 0.3 m clean soil.	Leak/ Spill	Solid and Liquid	Unk.	None
200-E-130	Inactive	Unplanned Release	200-E-130, Stabilized Area on West Side of B Plant Chemical Spur	B Plant Area	Railroad	N	Y	1-2	650	65	10	Unk.	0-2	The site has been stabilized.	Unk.	Solid, Liquid	20,000 dpm per 100 sq cm in August 2002.	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-W-81	Inactive	Unplanned Release	200-W-81; Contaminated Tumbleweed Fragments Along Railroad Track East of 218-W-3AE	WM Area	Railroad	N	N	None	4000	100	40	Unk.	0-2 (spotty)	Removal of tumbleweeds in 1997; sprayed area with soil cement and posted CA.	Vegetation (tumbleweeds)	Solid	70,000 dpm beta/gamma on August 15, 1997	None
UPR-200-E-10	Inactive	Unplanned Release	UPR-200-E-10, Contaminated PUREX Railroad Spur, UN-200-E-10	PUREX Area	Railroad	N	N	None	Unk.	Irr.	Irr.	Unk.	0-2	Railroad cut decontaminated by excavation and flushing. Reduced contamination to max of 25 mR/h. Most of craneway, crane and railroad right-of-way was decontaminated.	Leak/ Spill	Liquid	Contamination ranging from 5 to 20 rad/h in September 1957	Unk.
UPR-200-E-11	Inactive	Unplanned Release	UPR-200-E-11, Railroad Track Contamination Spread, UN-200-E-11	Solid Waste Area/ B Plant Area/ 200 E Admin Area/ Semi-Works Area/ PUREX Area	Railroad	N	Y	1-2	1.2E+5	Irr.	Irr.	Unk.	0-2 (spotty)	In 1957 most of contamination was removed.	Leak/ Spill	Liquid	Fission product contamination spots	None
UPR-200-E-112	Inactive	Unplanned Release	UPR-200-E-112, UN-200-E-112, Contaminated Railroad Track from B Plant to the Burial Ground	B Plant Area	Railroad	N	N	None	6.8E+4	50	Irr.	Unk.	0-2 (spotty)	Cleanup occurred in 1979 with recommendation to continue to clean contaminated track.	Leak/ Spill	Liquid	40,000-80,000 cpm detected in 1979	Unk.
UPR-200-E-12	Inactive	Unplanned Release	UPR-200-E-12, Contaminated PUREX Railroad Spur, UN-200-E-12	PUREX Area	Railroad	N	Y	1-2	Unk.	Irr.	Irr.	Unk.	0-2 (spotty)	The site has been surface stabilized.	Leak/ Spill	Liquid	40-1700 mR/h; dose rate on burial box equal to 450 mR/h at 150 ft in November 15, 1957	None
UPR-200-E-20	Inactive	Unplanned Release	UPR-200-E-20, Contaminated PUREX Railroad Spur, UN-200-E-20	PUREX Area	Railroad	N	N	None	Unk.	Irr.	Irr.	Unk.	0-2 (spotty)	None	Leak/ Spill	Liquid	Unk.	None
UPR-200-E-33	Inactive	Unplanned Release	UPR-200-E-33, Contaminated PUREX Railroad tracks, UN-200-E-33	PUREX Area	Railroad	N	N	None	Unk.	Irr.	Irr.	Unk.	0-2 (spotty)	The February Monthly Report for 1964 (HW-81078) was issued on 3-20-64. This report states that decontamination was successful, but does not give any details of the decontamination activity. The 216-A-9 Crib was surface stabilized in 1993.	Leak/ Spill	Liquid	Unk.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-E-69	Inactive	Unplanned Release	UPR-200-E-69, UN-216-E-69, Railroad Car Flush Water Radioactive Spill, UN-200-E-69	B Plant Area	Railroad	N	Y	1-2	1.1E+5	Irr.	Irr.	Unk.	0-2 (spotty)	In 1998, the track from the tunnel door to Atlanta Ave. was covered with gravel and reposted as URM.	Leak/ Spill	Liquid	20,000 cpm w/ 4000 cpm beta/gamma smearable on the track. 400 mrem/h at a distance of 100 ft on burial box in 1991.	None
UPR-200-E-88	Inactive	Unplanned Release	UPR-200-E-88, TC-4 Spur Contaminated Railroad Track, UN-216-E-88, UN-216-E-16, UN-200-E-88. Ground Contamination Around the Western PUREX Railroad Spur	200 E Admin Area	Railroad	N	Y	1-2	3.5E+4	Irr.	Irr.	Unk.	0-2 (spotty)	Contamination inside fenced area was stabilized. Contaminated railroad spur was included in cleanup plan.	Leak/ Spill/ Windblown Particulate/ Vegetation	Liquid	Gamma dose rates are less than 1 mrad/h in 1981; identified contamination of 20,000 to 60,000 dpm on the railroad track near where the tank cars were being staged. South of the tank cars, along the railway, contaminated areas of 2,000 to 20,000 dpm were also identified in 1991.	None
UPR-200-E-95	Inactive	Unplanned Release	UPR-200-E-95, UN-216-E-23, UN-200-E-95, Ground Contamination Around RR Spur Between 218-E-2A and 218-E-2	Solid Waste Area	Railroad	N	Y	1-2	1.3E+4	820	16	Unk.	0-2 (spotty)	In 1998, tracks were covered with gravel and posted as URM.	Contaminated Equipment Storage	Solid	September 20, 1991 inside contaminated area average reading of 2,000 counts per minute (beta) and a general rail reading of 3,000 - 6,000 cpm (beta) with a maximum of 350,000 dpm (beta) at one spot. Material on railcars had 100,000 beta and gamma contamination. 1996 perimeter survey found all levels to less than detectable.	Unk.
UPR-200-W-3	Inactive	Unplanned Release	UPR-200-W-3, Railroad Contamination, UN-200-W-3	T Plant Area	Railroad	N	Y	1-2	35	6	6	Unk.	0-2 (spotty)	In Spring 1950 railroad track contamination was covered with ~ 25 cm (10 in.) of clean gravel.	Unk.	Solid, Liquid	Unk.	Unk.
UPR-200-W-4	Inactive	Unplanned Release	UPR-200-W-4, Railroad Contamination, UN-200-W-4	T Plant Area	Railroad	N	N	None	Unk.	Irr.	Irr.	Unk.	0-2	Decontamination of the area was initiated in 1949.	Leak/ Spill/ Windblown Particulates	Solid and Liquid	Average readings on the track were 7 mrem/h. Dust reading of up to 10,000 cpm in 1949.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-W-41	Inactive	Unplanned Release	UPR-200-W-41, Railroad Contamination, UN-200-W-41, REDOX Railroad Cut Contamination	REDOX Area	Railroad	N	Y	1-2	2.4E+5	Irr.	Irr.	Unk.	0-2 (spotty)	In 1956, area decontaminated to less than 1000 cpm. Mid-1980s, the section of RR track from 202-S Tunnel to REDOX facility fence was backfilled/stabilized. In 1997, [workers] backfilled section of RR track (NW from facility boundary fence to intersection of track & first gravel road) with 0.6 m (2 ft) clean soil. 2000, pushed in berms on sides of RR cut; stabilized remainder of cut.	Leak/ Spill	Liquid	Waste was contaminated with beta/gamma 1000 mrad/h; 100 to 500 mrad/h along east side of right-of-way. Flat car: 10,000-20,0000 cpm; paper in flat car had 3,000 mrad/h. All in 1956.	Unk.
UPR-200-W-44	Inactive	Unplanned Release	UPR-200-W-44, Railroad Track Contamination, UN-200-W-44	T Plant Area	Railroad	N	N	None	500	25	20	Unk.	0-2 (spotty)	Area decontaminated to a maximum of 20,000 cpm. An unidentified amount of dirt was removed.	Leak/ Spill	Solid and Liquid	2 rad/h beta/gamma on October 24, 1957.	Unk.
UPR-200-W-46	Inactive	Unplanned Release	UPR-200-W-46, Contaminated Railroad Track, H-2 Centrifuge Burial, UN-200-W-46	REDOX Area	Railroad	N	Y	1-2	Unk.	Irr.	Irr.	Unk.	0-2	Mid 1980s, backfilled and stabilized section of RR track from 202-S Tunnel to REDOX facility fence; 1997, backfilled with 0.6 m (2 ft) clean soil the section of RR track.	Leak/ Spill	Solid	185 mrad/h at 177 m (580 ft) on December 30, 1957	Unk.
UPR-200-W-58	Inactive	Unplanned Release	UPR-200-W-58, Railroad Track Contamination, UN-200-W-58	T Plant Area	Railroad	N	N	None	7.3E+4	Irr.	Irr.	Unk.	0-2 (spotty)	After release was identified (1965), the contaminated equipment was isolated and decontamination initiated. Some contaminated dirt was removed from the RR bed in 1965.	Leak/ Spill	Solid and Liquid	Beta/gamma, 5 Rad/h (end of flat car); 100,000 cpm (RR bed surface); 20,000 cpm (underside of railcar) on April 26, 1965.	Unk.
UPR-200-W-65	Inactive	Unplanned Release	UPR-200-W-65, Contamination in the T-Plant Railroad Cut, UN-200-W-65	T Plant Area	Railroad	N	N	None	1227	374	3	Unk.	0-2	In 1969, areas described in the occurrence report were decontaminated.	Leak/ Spill	Liquid	5000 cpm to 150 mrad/h on October 27, 1969	Unk.
UPR-200-W-73	Inactive	Unplanned Release	UPR-200-W-73, Contaminated Railroad Track at 221-T, UN-200-W-73	T Plant Area	Railroad	N	N	None	2.4E+4	1200	20	Unk.	0-2 (spotty)	The weld crack was decontaminated and repaired. The occurrence report did not mention of any cleanup of the ground or railroad tracks.	Leak/ Spill	Liquid	3800 mrad/h on bed of RR car; 40 mrad/h on RR track beta/gamma in 1974	Unk.
200-W-83	Inactive	Unplanned Release	200-W-83, Contamination Area North of 2727W	T Plant Area	Railroad/ Building	Y	N	None	1500	60	25	Unk.	0-2	In April 2007, the contamination was backfilled with clean dirt.	Unk.	None	Unk.	Unk.

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-E-66	Inactive	Unplanned Release	UPR-200-E-66, 216-A-42 Basin Contamination Release, UN-216-E-66, UN-200-E-66	PUREX Area	Retention Basin	Y	Y	1-2	4.4E+4	Irr.	Irr.	Unk.	0-1	The 216-A-42 basin was surface stabilized in July 2001 and the contaminated area backfilled with clean dirt from adjacent soil berm.	Windblown particulate	Solid	40,000 cpm on ground within retention basin fence. Smears on the walls and bottom of the basin were 200-100,000 cpm. Beta/gamma particulates w/ readings inside the basin of 40,000 cpm and outside the basin at 3,000 cpm in November 7, 1984.	None
200-E-128	Inactive	Unplanned Release	200-E-128, Radioactive Contamination "Hot Spot" Under Gravel Road	Solid Waste Area	Roadway	N	N	None	Unk.	Irr.	Irr.	Unk.	0-6	None	Unk.	Solid, Liquid	The surface or the gravel road initially read 1000 cpm. The readings with 15 cm (6 in.) of soil removed increased to 100,000 cpm. Beta/gamma in 1995.	None
200-W-67	Inactive	Unplanned Release	200-W-67, Contaminated Soil at the Corner of Cooper and 16th Street	S/U Farm Area	Roadway	N	Y	1-2	1.9E+4	328	59	Unk.	0-1	Surface stabilized on 9/10/98. The posted Contamination Area (CA) was covered with clean backfill material and reposted as URM.	Biological Intrusion/ Animal Feces; Windblown Particulates	Solid	Contamination specks and a contaminated ant hill near the intersection of 16th St. and Cooper Ave with a maximum reading on the specks of 11 mr/h; another speck was found that read 6 mr/h; other contamination levels ranged from 500 cpm to 70,000 cpm; the ant hill read 3000 cpm, all in April 1998.	None
UPR-200-E-39	Inactive	Unplanned Release	UPR-200-E-39, Release from 216-A-36B Crib Sampler (295-A), UN-200-E-39	PUREX Area	Roadway	N	Y	1-2	676	26	26	3	0-3	Blacktop and ground surface was hosed down with water. In January 1999, the surface contaminated areas south of PUREX were covered with clean gravel.	Leak/ Spill	Liquid	20-450 mrad/h on February 6, 1968.	Unk.
UPR-200-E-43	Inactive	Unplanned Release	UPR-200-E-43, Road Contamination near 241-BY Tank Farm, UN-200-E-43	B Farm Area	Roadway	N	N	None	Unk.	Irr.	Irr.	Unk.	0-3 (spotty)	Decontamination began immediately after release; but no record of effectiveness of decontamination.	Leak/ Spill	Liquid	Contamination readings were from 1,000-100,000 cpm	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
UPR-200-W-56	Inactive	Unplanned Release	UPR-200-W-56, Contamination at the REDOX Column Carrier Trench, UN-200-W-56	REDOX Area	Roadway	N	N	None	Unk.	Irr.	Irr.	Unk.	0-6	None	Storm water Runoff	Liquid	Beta/gamma contamination 30,000 cpm on gravel and 80,000 dpm on blacktop on February 6, 1961	Unk.
UPR-200-W-71	Inactive	Unplanned Release	UPR-200-W-71, UN-200-W-71, Contamination Spread along 16th Street	WM Area/ PFP Area/ 200 W Ponds Area/S/U Area	Roadway	N	N	None	8.4E+4	Irr.	Irr.	Unk.	0-1 (spotty)	In 1974, the roadway was cleaned and released after extensive effort. The truck was decontaminated.	Contaminated Equipment	Liquid	20,000 to 100,000 cpm; Beta-gamma contamination up to 600 mrad/h on January 24, 1974.	Unk.
UPR-600-12	Inactive	Unplanned Release	UPR-600-12, UN-600-12, UNH Spill to Route 4S	NRDWL/B C Controlled Area	Roadway	N	Y	1-2	175	21	8	Unk.	0-6	In 1971, contamination was dug up and removed to a 200 West Burial Ground; 1998, contamination on south shoulder of Route 4S near top of hill discovered and 1999, backfilled with clean material. In 1/06, contaminated (beta/gamma) soil was removed and gravel added to site.	Leak/ Spill	Liquid	Uranium, uranium nitrate hexahydrate solution	Unk.
200-E-109	Inactive	Unplanned Release	200-E-109, Contaminated Tumbleweed Accumulation, Contamination Spread in Northeast Corner of 200 East Area	Solid Waste Area	Roadway/ Outlying area	N	Y	1-2	1.5E+4	249	62	Unk.	0-1 (spotty)	Contaminated vegetation is removed sometimes; tumbleweeds keep accumulating; if not possible to remove, contamination is surrounded with a radiation barrier. Some contaminated fragments and soils were picked up but reports indicate it keeps accumulating. A single area (75.9 x 18.9 m) was covered with soil.	Vegetation (tumble-weeds)	Solid	Inside East Area perimeter fence: 20,000 - > 100,000 dpm; Outside 200 East Area perimeter fence and around LERF: 2,000-800,000 dpm beta/gamma over the years of 1998-2000.	None
200-E-121	Inactive	Unplanned Release	200-E-121, Soil Contamination Area East and West of Baltimore Avenue	B Farm Area	Roadway/ Outlying area	N	Y	Unk.	5.2E+4	656	80	Unk.	0-1 (spotty)	A portion of Baltimore Ave. was covered with new pavement. Some soil was consolidated and placed on top of 216-B-7 A&B and 216-B-11 A&B Cribs; soil and cribs covered with dirt; UPR-200-E-89 also had soil scraped, consolidated, and covered with clean backfill.	Windblown Particulate	Solid	Contaminated Vegetation	None
UPR-200-W-63	Inactive	Unplanned Release	UPR-200-W-63, Road Contamination along the South Shoulder of 23rd Street, UN-200-W-63	T Farm Area	Roadway/ Outlying Area	N	Y	0.5	1.2E+4	500	Irr.	Unk.	0-1 (spotty)	In 1966, spotty contamination on road was removed; road shoulder and borrow pit was covered with 15.24 cm (6 in.) soil. Removed from radiation zone status in November 1972.	Windblown particulate	Solid	Sr-90 activity of 1 Ci. Spots of contamination 500 mrad/h on road in 1966.	None
UPR-200-E-2	Inactive	Unplanned Release	UPR-200-E-2, UN-200-E-2, Spotty Contamination Around the B and T Plant Stacks	B Plant Area	Stack	N	N	None	Unk.	Irr.	2000	Unk.	0-1	Appropriate steps were taken over the years to eliminate stack contamination releases. Most stack releases consisted of ruthenium. Contamination from the stack releases has decayed to levels below detection.	Ventilation Particulate	Solid	Unk.	None

Table B-1. 200-MG-1 Operable Unit Waste Site Attributes. (22 Pages)

Waste Site Code	Current Status	Waste Site Type	Waste Site Name	Facility Area	Physical Setting	Back-fill (Y/N)	Surface Cover Present (Y/N)	Surface Cover Thickness (ft)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Potential Cont. Interval (ft)	Prior Cleanup Activities	Release Mechanism	Release Type (Solid and/or Liquid)	Potential Constituents	
																	Radiological	Non-Radiological
200-E-26	Inactive	Unplanned Release	200-E-26, Heavy Equipment Storage Area, Diesel Fuel Contaminated Soil	B Plant Area	Storage Yard	N	Y	1-2	3600	120	30	Unk.	0-15 (spotty)	A gravel/cobble overburden was placed.	Leak/ Spill	Liquid	None	Hydro-carbons
UPR-200-W-67	Inactive	Unplanned Release	UPR-200-W-67, Contamination near 2706-T, UN-200-W-67	T Plant Area	Storage Yard	N	N	None	72	24	3	Unk.	0-1	None	Contaminated Vehicle	Solid	20,000 cpm beta/gamma on the ground; 500 mrad/h on the electric lift both on August 5, 1970.	None
200-W-22	Inactive	Unplanned Release	200-W-22, 203-S/204-S/205-S Stabilized Area	REDOX Area	Unloading station/ Tanks	N	Y	2	6.2E+4	276	223	10	0-15 (spotty)	In 1983 aboveground features were removed; bulk of radioactive structures/equipment removed to level equal to 0.6 m below railroad grade level. Deep structures remain. The area was graded and leveled with clean backfill.	Leak/ Spill	Liquid	Uranium isotopes and unknown others. A maximum of 10,000 counts per minute at 25 cm (1 in.) was found in this area in 1952.	Uranium metal and unknown others
209-E-WS-3	Inactive	Valve Pit	209-E-WS-3, Critical Mass Laboratory Valve Pit and Hold Up Tank (209-E-TK-111), IMUST, Inactive Miscellaneous Underground Storage Tank (see Subsites)	Semi-Works Area	Valve Pit	N	N	None	35	11	5	9	0-9	None	Contaminated Condensate	Liquid	Plutonium	None

Notes – Column titled “Backfill” is defined as soil being replaced inside a waste sites to refill it to grade, however this action is not associated with construction (e.g., cribs being backfilled with gravel) of the waste site..
Column titled “Surface cover present” is defined as soils that were added to a waste site above grade and column “Surface cover thickness” is only used when there is a “Y” in surface cover present.

- Irr = irregular

RCT = radiation control technician.

REDOX = Reduction-Oxidation (Plant or process).

RLS = radiological logging system.

RMA = Radioactive Materials Area.

RMO = records management officer.

RR = railroad.

SCA = soil contamination area.

SSW = Strontium Semi-Works.

SWMU = Solid Waste Management Unit.

SWP = Solid Waste Project.
- TC = tank car.

TEDF = Treated Effluent Disposal Facility.

TSD = treatment, storage, or disposal.

UNH = uranyl nitrate hexahydrate.

Unk. = unknown.

UPR = unplanned release.

URM = underground radioactive material.

URMA = Underground Radioactive Material Area.

VCP = vitrified clay pipe.

WIDS = Waste Information Data System database.

WM = waste management.

WTP = Waste Treatment and Immobilization Plant.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
200-E-6	200-E-6, Septic Tank, Sanitary Sewer Repair and Replacement 2607-E4	B Plant Area	None	None	Inactive	Septic Tank	Yes	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	1000	This 1,000 gal. "Lendborg" fiberglass septic tank (ST) is a replacement of the original 2607-E4 ST (see 2607-E4 info.). Inlet vertical elev. at 695.0 ft bgs. ST details not given on H-2-92553 other than volume, inlet invert elev., and material.	Unk.	Unk.
						Septic Tile Field	n/a	1400	70	20	Unk.	Unk.	Unk.	None	Rectangular drain field (DF) consisting of three parallel lines of same length. No information on depth of DF in H-2-92553. Possibly the same DF as that for the 2607-E4 ST since the 200-E-6 ST was a replacement for the 2607-E4 ST.	Unk.	Unk.
200-E-7	200-E-7, 2607-EO Septic Tank & Tile Field	200 E Admin Area	Active system supports 2711E (automotive shop). Installed in 1994.	None	Active	Septic Tank	No	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	No useful information found on this ST.	Unk.	Unk.
						Septic Tile Field	n/a	3250	65	50	3	None	0-4	None	Based on drawing H-2-93802.	Unk.	Unk.
200-W-51	200-W-51, Septic Tank (Abandoned)	S/U Farm Area	None	The system was abandoned in 1994 in accordance with Washington Administrative Code 246-272-18501. The tank was exposed at the top, stabilized, the tank walls were collapsed, and the site was backfilled and compacted with clean backfill.	Inactive	Septic Tank	Yes	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	No useful information found on this ST.	Unk.	Unk.
						Septic Tile Field	n/a	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	None	No useful information found on this DF.	Unk.	Unk.
2607-E1	The 2607-E1 Septic Tank is associated with the 2607-E1 Tile Field, the 200 East shops and 282-E.	200 E Admin Area	None	The system was abandoned in 1997 in accordance with Washington Administrative Code 246-272-18501. This system was tied into 2607-E1-A.	Active	Septic Tank	No	325	26	13	14	None	0-15	None	Based on Drawings H-2-1196 & W-171192	Unk.	Unk.
						Septic Tile Field	n/a	18300	305	60	7	None	0-7.5	None		Unk.	Unk.
						Septic Tile Field	n/a	6175	95	65	7	None	0-7.5	None		Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-E12	2607-E12, 2607-E12 Septic System	200 E Ponds Area	None	None	Active	Septic Tank	No	204	20	10	15	None	0-16	10000	Septic tank (fiberglass), pump station (old septic tank), checkvalve manhole, Valve box, pipelines & two drain fields (new & old). Based on Drawings H-2-82091, H-2-82092, H-2-82093 & H-2-90438.	Unk.	Unk.
						Septic Tank	No	64	8	8	7	None	0-8	None		Unk.	Unk.
						Septic Tile Field	n/a	5400	90	60	7	None	0-7.5	None		Unk.	Unk.
						Septic Tile Field	n/a	33000	275	120	5	None	0-5.5	None		Unk.	Unk.
2607-E3	2607-E3, 2607-E3 Septic Tank and Drainfield, 2607-E3 Septic System, TFS of 218-E-4, Tile Field South of 218-E-4	B Plant Area	The 2607-E3 Septic System was associated with B Plant facilities.	The septic tank was abandoned in 1997. The tank was pumped, filled with soil, and the covers were removed.	Inactive	Septic Tank	Yes	324	30	11	14	13	0-14	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192).	Unk.	Unk.
						Septic Tile Field	n/a	Irr.	260 to 318	215 to 250	5.8 to 8.0	None	0-9	None	Very irr. trapezoidal DF consisting of 23 parallel lines of decreasing lengths (H-2-1237).	Unk.	Unk.
2607-E4	2607-E4, 2607-E4 Septic Tank and Tile Field	B Plant Area	The 2607-E4 Septic Tank is associated with the 2607-E4 Tile Field and B Plant Facilities.	The site was abandoned 1998 in accordance with WAC 246-272-18501. Samples were taken in May 1998.	Inactive	Septic Tank	Yes	17	5	3	9	9	0-10	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192).	Unk.	Unk.
						Septic Tile Field	n/a	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	None	No information on this DF. Possibly the same DF as that summarized for the 200-E-6 ST/DF since the 200-E-6 ST was a replacement for the 2607-E4 ST.	Unk.	Unk.
2607-E5	2607-E5	Semi-Works Area	The 2607-E5 Septic Tank is associated with the 209-E, the 2704-C and the 2718-E Buildings. Original construction of the tank was for buildings 2704-C and 2707-C. Later	None	Inactive	Septic Tank	Yes	124	17	7	6	~5.5	0-7	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192 and H-2-4067). Associated with the newer 2607-E7 STs (A and B). Dimensions given in W-71192 do not agree with the dimensions given in H-2-4067. Since the H-2-4067 design has a "Checked for As-Built" revision noted on it and since the drawing shows a newer date (1950 compared to the 1944 date shown on W-71192), the ST information presented here is taken from H-2-4067.	Not dangerous/nonradioactive sewer effluent	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
			modifications added two additional septic tanks, 2607-E7 (WIDS 2607-E7A), 2607-E (WIDS 2607-E7B), and the leaching trench. During the history of this system, mobile offices have been connected to the system. Two examples were the addition of MO-337 and MO-543. These mobile offices have since been moved.			Septic Tile Field	n/a	2500	~50	~50	Unk.	None	Unk.	None	H-2-4033 shows the original, abandoned DF (1) as a rhombus shaped area (with an ~45 deg. acute angled leading corner) consisting of six parallel 50 ft lines (totaling 300 ft). Newer DF (2) is a long rectangular shaped trench, and was added replacing the original DF (1) when the newer STs 2607-E7A and 2607-E7B were added in line with the older 2607-E5 ST. Associated with the original 2607-E5 ST system.	Unk.	Unk.
						Septic Tile Field	n/a	1350	~90	~15	~11	None	0-12	None	H-2-4033 shows the original, abandoned DF (1) as a rhombus shaped area (with an ~45 deg. acute angled leading corner) consisting of six parallel 50 ft lines (totaling 300 ft). Newer DF (2) is a long rectangular shaped trench, and was added replacing the original DF (1) when the newer STs 2607-E7A and 2607-E7B were added in line with the older 2607-E5 ST. Associated with the original 2607-E5 ST system.	Unk.	Unk.
2607-E6	2607-E6, Septic Tank and Tile Field	200 E Admin Area	None	The system was abandoned in 1997 in accordance with WAC 246-272-18501, including pumping the tank contents, filling the tank with soil, and removing the covers. No sample data has been found.	Inactive	Septic Tank	Yes	275	28	10	14	14	0-14.8	Unk.	Generally, a rectangular cube- shaped concrete ST (H-2-55538).	Unk.	Unk.
						Septic Tile Field	n/a	~28,750	~115 (each)	~125 (each)	~3.3 (min)	None	0-4.3	None	H-2-44501 (sht. 59) shows two separate feather-shaped DFs downstream of a DB and ST. H-2-55537 shows additional dimensional info. for the two DFs.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-E7A	2607-E7A, 2607-E7	Semi-Works Area	The 2607-E7A Septic System is associated with the 209-E, 2704-C, 2718-E, MO-337 (moved) and the MO-543 (moved) Buildings. This system is in series with the 2607-E5, 2607-E7B septic tanks and a leaching trench.	None	Inactive	Septic Tank	No	46	9	5	6	~11	0-6.5	Unk.	Associated with the original 2607-E5 ST system. According to WIDS, 2607-E7A and 2607-E7B are both also known as 2607-E7. Based on W-71192, 2607-E7 is generally a rectangular cube-shaped concrete ST. Based on H-2-4602, 2607-E7A and 2607-E7B are both somewhat rectangular cube shaped tanks with half-cylinder shaped (rounded) ends (with each cylindrical axis along the vertical). W-71192 and H-2-4602 are in disagreement. Since the H-2-4602 design has a "Checked for As-Built" revision noted on it and since the drawing shows a newer date (1963 compared to the 1944 date shown on W-71192), the ST information presented here is taken from H-2-4602.	Not dangerous/nonradioactive	Unk.
						Septic Tile Field	n/a	2500	~50	~50	Unk.	None	Unk.	None	H-2-4033 shows the original, abandoned DF (1) as a rhombus shaped area (with an ~45 deg. acute angled leading corner) consisting of six parallel 50 ft lines (totaling 300 ft). Newer DF (2) is a long rectangular shaped trench, and was added replacing the original DF (1) when the newer STs 2607-E7A and 2607-E7B were added in line with the older 2607-E5 ST. Associated with the original 2607-E5 ST system.	Unk.	Unk.
						Septic Tile Field	n/a	1350	~90	~15	~11	None	0-12	None	H-2-4033 shows the original, abandoned DF (1) as a rhombus shaped area (with an ~45 deg. acute angled leading corner) consisting of six parallel 50 ft lines (totaling 300 ft). Newer DF (2) is a long rectangular shaped trench, and was added replacing the original DF (1) when the newer STs 2607-E7A and 2607-E7B were added in line with the older 2607-E5 ST. Associated with the original 2607-E5 ST system.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-E7B	2607-E7B, 2607-E7B Septic System, 2607-E7	Semi-Works Area	The 2607-E7B Septic System is associated with the 209-E, 2704-C, 2718-E, MO-337 (moved) and the MO-543 (moved) Buildings. This system is in series with the 2607-E5, 2607-E7A septic tanks and a leaching trench.	None	Active	Septic Tank	No	46	9	5	6	~11	0-6.5	Unk.	Associated with the original 2607-E5 ST system. According to WIDS, 2607-E7A and 2607-E7B are both also known as 2607-E7. Based on W-71192, 2607-E7 is generally a rectangular cube- shaped concrete ST. Based on H-2-4602, 2607-E7A and 2607-E7B are both somewhat rectangular cube shaped tanks with half-cylinder shaped (rounded) ends (with each cylindrical axis along the vertical). W-71192 and H-2-4602 are in disagreement. Since the H-2-4602 design has a "Checked for As-Built" revision noted on it and since the drawing shows a newer date (1963 compared to the 1944 date shown on W-71192), the ST information presented here is taken from H-2-4602.	Not dangerous/non-radioactive	Unk.
						Septic Tile Field	n/a	2500	~50	~50	Unk.	None	Unk.	None	H-2-4033 shows the original, abandoned DF (1) as a rhombus shaped area (with an ~45 deg. acute angled leading corner) consisting of six parallel 50 ft lines (totaling 300 ft). Newer DF (2) is a long rectangular shaped trench, and was added replacing the original DF (1) when the newer STs 2607-E7A and 2607-E7B were added in line with the older 2607-E5 ST. Associated with the original 2607-E5 ST system.	Unk.	Unk.
						Septic Tile Field	n/a	1350	~90	~15	~11	None	0-12	None		Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-E9	2607-E9, 242B/BL Septic Tank and Drain Field, 2607-E9 Septic System	B Farm Area	The 2607-E9 Septic Tank is associated with a drain field and the 242-B and the 242-BL Buildings.	Tank was abandoned in accordance with WAC 246-272-18501. Samples were taken and no contamination was found.	Inactive	Septic Tank	Yes	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	500	Only information found for this ST is contained on H-2-2023 that lists the ST "to be" a 500 gal. "National" (or other approved tank) maybe of rust-resistant alloy steel. ST is located at the very start (upstream) of the general DF area. Appears vertically cylindrical according to H-2-2023. No other information shown on this drawing.	Unk.	Unk.
						Septic Tile Field	n/a	1600-2400	~40 to 60	~40	~3.5 (max)	None	0-4.5	None	H-2-2023 shows a feather-shaped DF consisting of 5 parallel secondary lines staggered 8 ft apart on each side (10 total) of the primary line running in the center. Irr. geometry overall, but estimated dimensions given assume a "pentagon" shape with two sides running parallel with the main center line. ST is located at the very start (upstream) of the general DF area.	Unk.	Unk.
2607-EA	2607-EA, 2607-EA Septic Tank and Drywell	PUREX Area	244-AR Vault	None	Active	Septic Tank	No	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	1000	Based on H-2-61979, the ST is a somewhat rectangular cube shaped tank with half-cylinder shaped (rounded) ends (with each cylindrical axis along the vertical). Specifications given in HWS-7539 state the ST is 1,000 gal. Capacity and could be made of either pre-fab coated steel or pre-cast concrete. Exact dimensions not given.	Unk.	Unk.
						Septic Tile Field	n/a	32	-N/A- (round)	~6.4 (outer diam.)	~7	None	0-8	None	Based on H-2-61979, the DF is a vertically cylindrical shaped dry well constructed with 8"x8"x16" cement blocks (w/out mortar).	Unk.	Unk.
2607-EE	2607-EE, 2607-EE Septic System	PUREX Area	The site is associated with the 202-A facility and the 200-E-107 stabilized area.	The septic system is located within a larger radiologically posted area known as 200-E-107. The 200-E-107 Contamination Area was surface stabilized in the summer of 2001 and downposted to URM.	Inactive	Septic Tank	Yes	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	Kaustine "Standard" Series Vert. Tank No. 65 or design equal (H-2-57110). Other than this, no details given on any of the drawings.	Unk., received waste from PUREX so there is potential contamination	Unk.
						Septic Tile Field	n/a	3335	59	57	~2.5 to 3	None	0-4	None	H-2-57110 shows a feather-shaped DF consisting of 6 27-ft long parallel secondary lines 7 ft apart on each side (12 total) of the primary line running in the center. Dimension given are those formed by the square that captures the entire footprint of the DF.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-W1	2607-W1	T Plant Area	The 2607-W1 Septic Tank is associated with the 2607-W1 drain field, 2707-W, 2713-W, 283-W, 277-W, 275-W, 274-W, 284-W, 2723-W, 2704-W, 2719-WB, 272-W, MO-278, MO-279, MO-235, MO-406, MO-412, MO-215, MO-056, MO-204, MO-240, and MO-287.	None	Active	Septic Tank	No	90	10	9	10	None	0-11	None	Based on Drawings H-2-817619 through H-2-817622m W-71192, H-2-2589, H-2-44511 sht 101, 108, 109.	Unk.	Unk.
						Septic Tank	No	153	17	9	12	None	0-13	None		Unk.	Unk.
						Septic Tile Field	n/a	73158	534	137	7	None	0-8	None		Unk.	Unk.
						Septic Tile Field	n/a	19800	165	120	5	None	0-6	None		Unk.	Unk.
						Septic Tile Field	n/a	45500	350	130	6	None	0-7	None		Unk.	Unk.
2607-W3	2607-W3	T Plant Area	The 2607-W3 Septic Tank as associated with the 221-T, the 222-T, the 224-T, and the 271-T Buildings.	The 2607-W3 Septic Tank has been pumped, sampled, filled with sand and abandoned in place.	Inactive	Septic Tank	Yes	324	30	11	14	13	0-15	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192).	Unk.	Unk.
						Septic Tile Field	n/a	27840-40832	~240 to ~352	~116	~2.5 to ~7.5	None	0-8.5	None	Irr. two-part DF with: 1) a newer, northern trapezoidal section (> one-half the overall area) consisting of 15 parallel lines of decreasing lengths; all DF dimensions are estimated.	Unk.	Unk.
						Septic Tile Field	n/a	16632-23352	~198 to ~278	~84	~2.5 to ~7.5	None	0-8.5	None	An original, southern trapezoidal section (< one-half the overall area) consisting of 11 parallel lines of decreasing lengths (based on H-2-1139 and H-2-1865). All DF dimensions are estimated.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-W4	2607-W4, T Plant Septic Tank and Drain Field	T Plant Area	The 2607-W4 Septic Tank is associated with the 221-T Canyon Building.	The septic tank was abandoned in June 1998, per Washington Administrative Code 246-272-18501 requirements. The lid was left on but the inlet and outlet piping were grouted. The septic tank was filled with sand. The drain field remains in place. The inlet and outlet tank piping on the septic tank was grouted. Before filling with sand, the septic tank was sampled and pumped empty. Water and sludge samples were obtained from the tank. The drain field was not sampled.	Inactive	Septic Tank	Yes	17	5	3	9	9	0-10	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192).	Unk.	Unk.
						Septic Tile Field	n/a	300	30	10	Unk.	None	Unk.	None	No useful information found on this DF. DF not shown at all on M-2904-W (sht. 11), only ST shown.	Unk.	Unk.
2607-W6	2607-W6	200 W Ponds Area	The 2607-W6 Septic Tank is associated with the 202-S, the 222-S, and the 2704-S Buildings and MO-037, MO-039, MO-028, MO-924, and MO-936.	None	Active	Septic Tank	No	293	23	13	15	None	0-16	None	Septic tank, 2 shallow manholes, diversion box, & drain field. Based on Drawings H-2-5153, H-2-5154, & H-2-44511	Unk.	Unk.
						Septic Tile Field	n/a	76800	320	240	7	None	0-7.5	None		Unk.	Unk.
2607-W8	2607-W8	PFP Area	The 2607-W8 Septic Tank is associated with a sanitary tile field and the 231-Z Building.	The system was abandoned 1998 according to Washington Administrative Code 246-272-18501 requirements. No record of samples could be found.	Active	Septic Tank	No	149	19	8	13	12	0-14	Unk.	Generally, a rectangular cube- shaped concrete ST (W-71192).	Unk.	Unk.
						Septic Tile Field	n/a	Unk.	Unk.	Unk.	Unk.	None	Unk.	None	No useful information found on this DF as H-2-26566 only shows the general location and rectangular shape of what appears to be the 2607-Z ST and DF (they are in no way labeled on the drawing). More information needed.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-W9	2607-W9, 2707-SX Septic Tank	S/U Farm Area	The 2607-W9 Septic Tank is associated with the 2707-SX Change House.	The septic system was abandoned in 1999 per the requirements of WAC 246-272-1851.	Inactive	Septic Tank	Yes	117	20	6	12	Unk.	0-13	Unk.	No useful information found on this ST.	No radionuclides are known to have been disposed to the septic system, the change trailer drains emptied into it.	Unk.
						Septic Tile Field	n/a	Unk.	Unk.	Unk.	Unk.	None	Unk.	None	No useful information found on this DF.	Unk.	Unk.
2607-WC	2607-WC, 2607-WC Septic System	200 W Ponds Area	The 2607-WC septic system is associated with the 272-S Building, the 242-S Building and MO-027.	None	Active	Septic Tank	No	136	17	8	9	None	0-10	None		Unk.	Unk.
						Septic Tank	Yes	96	12	8	5	None	0-6	None		Unk.	Unk.
						Septic Tile Field	n/a	2565	57	45	2	None	0-3	None		Unk.	Unk.
2607-WL	Active system supports 272WA (tank farm support facility)	WM Area	The 2607-WL-Septic Tank is associated with a drain field and the 272-WA Building.	The septic system was abandoned in 1999 per the requirements of Washington Administrative Code 246-272-1851. All septage inside the tank was removed and the empty tank was filled to eliminate void spaces. There are no records of sampling during abandonment activities. Per an agreement with the Washington Department of Health, the septic system lids were left in place.	Inactive	Septic Tank	Yes	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	4000		Unk.	Unk.
						Septic Tile Field	n/a	2400	60	40	Unk.	Unk.	Unk.	Unk.		Unk.	Unk.
2607-WZ	2607-WZ	S/U Farm Area	The 2607-WZ Septic Tank is associated with the 241-SX Tank Farm.	None	Active	Septic Tank	No	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	Unk.	No useful information found on this ST.	Unk.	Unk.
						Septic Tile Field	n/a	Unk.	Unk.	Unk.	Unk.	None	Unk.	None	No useful information found on this DF.	Unk.	Unk.

Table B-2. 200-MG-1 Operable Unit Waste Site Attributes – Septic Systems. (10 Pages)

Waste Site Code	Waste Site Name	Facility Area	Related Sites/ Structure (WIDS only)	Prior Cleanup Activities (Summary)	Current Status	Septic System Segments	Back-filled Septic Tank (Yes/ No)	Site Area (ft ²)	Site Length (ft)	Site Width (ft)	Site Depth (ft)	Bottom (bgs in ft)	Potential Cont. Interval (ft)	Design Volume (gal)	Comments	Potential Constituents	
																Radiological	Non-Radiological
2607-Z	2607-Z	PFP Area	The 2607-Z Septic Tank is associated with the 234-5Z, 2704-Z, 270-Z, 236-Z, 292-Z, 2701-Z, 2701-ZA, and the 2701-ZB Buildings.	The septic system was abandoned per the requirements of WAC 246-272-18501 in 1999.	Inactive	Septic Tank	Yes	522	39	14	19	18	0-20	Unk.	Generally, a rectangular cube- shaped concrete ST (H-2-16457 and H-2-16018 [filed with the 2607-W3 drawings]).	Unk.	Unk.
						Septic Tile Field	n/a	42000	150	280	~ 3.5 to ~15	None	0-16	None	Most detailed information on DF found on H-2-14035 and H-2-16421. Also need H-2-16457 for more possible information (including more specific depth info). H-2-26566 (filed with the 2607-W8 drawings) shows the approx. ground-surface elevations and the general locations and rectangular shapes of what appear to be the 2607-Z ST and DF (they are in no way labeled on the drawing). Depths currently give are highly estimated. Design depth was at a minimum of 3.5 ft bgs, but some topo information shows much deeper potentials.	Unk.	Unk.
2607-Z1	2607-Z1, Septic Tank and Drain field	PFP Area	The site is associated with 234-5Z Building Annex and 2736-ZB.	The septic system was abandoned per the requirements of WAC 246-272-18501 in 1999.	Inactive	Septic Tank	Yes	38	9	5	6	~5.5	0-7	750	Generally, a rectangular cube- shaped concrete ST (H-2-20938).	No radionuclides or hazardous chemicals have been associated with this system; the facilities it serviced handled radioactive materials and may have contributed cont.	Unk.
						Septic Tile Field	n/a	1500	100	15	~3.5	None	0-4.5	None	Consists of a long rectangular shaped DF with 3 100-ft long parallel drain line separated by 7.5 ft (H-2-20938).	Unk.	Unk.

n/a = not applicable.
PFP = Plutonium Finishing Plant.
PUREX = Plutonium Uranium Extraction Plant.
PVC = polyvinyl chloride.
Rad = radioactive.

ST = septic tank.
TFS = Tile Field South.
Unk. = unknown.
URM = underground radioactive material.
WIDS = Waste Information Data System database.

APPENDIX C

**POTENTIAL APPLICABLE OR RELEVANT
AND APPROPRIATE REQUIREMENTS**

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TERMS

ALARA	as low as reasonably achievable
ARAR	applicable or relevant and appropriate requirement
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
EPA	U.S. Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
OU	operable unit
PCB	polychlorinated biphenyl
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
T-BACT	toxics – best available control technology
TBC	to be considered
TSCA	<i>Toxic Substances Control Act of 1976</i>
WAC	<i>Washington Administrative Code</i>

APPENDIX C
POTENTIAL APPLICABLE OR RELEVANT
AND APPROPRIATE REQUIREMENTS

C1.0 IDENTIFICATION OF POTENTIAL APPLICABLE OR
RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE
200-MG-1 OPERABLE UNIT

This appendix identifies and evaluates the key potential applicable or relevant and appropriate requirements (ARAR) for the 200-MG-1 Operable Unit (OU) removal action.

C1.1 COMPLIANCE WITH APPLICABLE OR
RELEVANT AND APPROPRIATE
REQUIREMENTS

For a site where material will remain on-site after completion of a *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) action, the level or standard of control that must be met for the hazardous substance, pollutant, or contaminant is at least that of any applicable or relevant and appropriate standard, requirement, criteria, or limitation under federal environmental law, or any more stringent standard, requirement, criteria, or limitation promulgated pursuant to a state environmental statute. An applicable requirement is one with which a private party would have to comply by law if the same action was being undertaken apart from CERCLA authority. All jurisdictional prerequisites of the requirement must be met for the requirement to be applicable. A requirement that is relevant and appropriate may "miss" on one or more jurisdictional prerequisites for applicability but still make sense at the site, given the circumstances of the site and release.

Response actions are required to comply with the substantive aspects of ARARs to the extent practicable, not with corresponding administrative requirements. That is, permit applications and other administrative procedures, such as administrative reviews and reporting and recordkeeping requirements, are considered administrative for actions conducted entirely onsite (40 CFR 300.400(e), "Permit Requirements") and therefore not required.

For the removal action being considered in this document, implementation of any selected alternative will be designed to comply with the ARARs cited in this section to the extent practicable. ARARs are selected from promulgated environmental regulations that have been evaluated to determine whether they may be pertinent to the removal action. The purpose of this appendix is to identify the key ARARs for the proposed alternatives addressed in this engineering evaluation/cost analysis. ARARs, which will be complied with during implementation of the selected removal action, will be documented in the CERCLA action memorandum.

In addition, potential ARARs were evaluated to determine if they fall into one of three categories: chemical-specific, location-specific, or action-specific. These categories are defined as follows.

- Chemical-specific requirements are usually health- or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of public- and worker-safety levels and site-cleanup levels.
- Location-specific requirements are restrictions placed on the concentration of dangerous substances or the conduct of activities solely because they occur in special geographic areas.
- Action-specific requirements are usually technology- or activity-based requirements or limitations triggered by the removal actions performed at the site.

Potential federal and state ARARs are presented in Tables C-1 and C-2, respectively. The chemical-specific ARARs likely to be the most relevant removal action of the 200-MG-1 OU are elements of the Washington State regulations that implement WAC 173-340, "Model Toxics Control Act -- Cleanup," specifically associated with developing risk-based concentrations for cleanup (WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties"). The requirements of WAC 173-340-745 help establish soil cleanup standards for nonradioactive contaminants at waste sites. The state air emission standards are likely to be important in identifying air emission limits and control requirements for any removal actions that produce air emissions. *Resource Conservation and Recovery Act of 1976* (RCRA) land-disposal restrictions will be important standards during the management of wastes generated during removal actions.

C1.2 WASTE MANAGEMENT STANDARDS

A variety of waste streams would be generated under the proposed removal action alternatives. A waste management plan will be written and included in the removal action work plan. It is anticipated that most of the waste will designate as low-level waste. However, quantities of dangerous or mixed waste, polychlorinated biphenyl (PCB)-contaminated waste, and asbestos and asbestos-containing material also could be generated. The great majority of the waste will be in a solid form. However, some aqueous solutions might be generated (e.g., liquid in railcars).

Radioactive waste is managed by U.S. Department of Energy under the authority of the *Atomic Energy Act of 1954*.

The identification, storage, treatment, and disposal of hazardous waste and the hazardous component of mixed waste are governed by RCRA. The State of Washington, which implements RCRA requirements under WAC 173-303, "Dangerous Waste Regulations," has been authorized to implement most elements of the RCRA program. The dangerous waste standards for generation and storage would apply to the management of any dangerous or mixed waste generated at the 200-MG-1 OU waste sites. Treatment standards for dangerous or mixed waste subject to RCRA land-disposal restrictions are specified in WAC 173-303-140, "Land Disposal Restrictions," which incorporates 40 CFR 268, "Land Disposal Restrictions," by reference.

The *Toxic Substances Control Act of 1976* (TSCA) and regulations at 40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and

Use Prohibitions,” govern the management and disposal of PCB wastes. The TSCA regulations contain specific provisions for PCB waste, including PCB waste that contains a radioactive component. PCBs also are considered underlying hazardous constituents under RCRA and thus could be subject to WAC 173-303 and 40 CFR 268 requirements.

Removal and disposal of asbestos and asbestos-containing material are regulated under the *Clean Air Act* and 40 CFR 61, “National Emission Standards for Hazardous Air Pollutants,” Subpart M, “National Emission Standards for Asbestos.” These regulations provide for special precautions to prevent environmental releases or exposure to personnel of airborne emissions of asbestos fibers during removal actions.

Waste designated as low-level waste that meets the ERDF acceptance criteria (WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*) is assumed to be disposed at the ERDF, which is engineered to meet appropriate performance standards. The ERDF is considered to be onsite for management and/or disposal of waste from removal actions proposed in this document.¹ There is no requirement to obtain a permit to manage or dispose of CERCLA waste at the ERDF. It is expected that the majority of the waste generated during the removal action proposed in this document can be disposed onsite at the ERDF. In accordance with the ERDF record of decision (EPA/ESD/R10-96/145, *Explanation of Significant Differences: USDOE Environmental Restoration Disposal Facility (ERDF), Hanford Site, Benton County, Washington*), authorization to dispose of waste generated during this removal action at the ERDF will be granted with the issuance of the future action memorandum and through EPA approval of the sampling and analysis plan. Waste that must be sent offsite will be sent to a facility that has been or could be approved by EPA in accordance with 40 CFR 300.440 for receiving CERCLA waste.

Waste designated as dangerous or mixed waste would be treated as appropriate to meet land disposal restrictions and ERDF acceptance criteria and disposed at the ERDF. The ERDF is an engineered facility that provides a high degree of protection to human health and the environment and meets RCRA minimum technical requirements for landfills, including standards for a double liner, a leachate collection system, leak detection, monitoring, and final cover. Construction and operation of the ERDF was authorized using a separate CERCLA record of decision (EPA/ROD/R10-95/100, *Declaration of the Interim Record of Decision for the Environmental Restoration Disposal Facility*; EPA/AMD/R10-02/030, *Record of Decision Amendment for the Environmental Restoration Disposal Facility*). EPA/ESD/R10-96-145 modified the ERDF record of decision to clarify the eligibility of waste generated during cleanup of the Hanford Site. Per EPA/ESD/R10-96-145, the ERDF is eligible for disposal of any low-

¹ CERCLA Section 104(d)(4), “where two or more noncontiguous facilities are reasonably related on the basis of geography, or on the basis of the threat or potential threat to the public health or welfare or the environment, the President may, at his discretion, treat these facilities as one.” The preamble to 40 CFR 300 clarifies the stated EPA interpretation that when noncontiguous facilities are reasonably close to one another, and wastes at these sites are compatible for a selected treatment or disposal approach, CERCLA Section 104(d)(4) allows the lead agency to treat these related facilities as one. This allows the lead agency to manage waste transferred between such noncontiguous facilities without having to obtain a permit. The ERDF is considered to be onsite for response purposes under this removal action. It should be noted that the scope of work covered in this removal action is for a facility and waste contaminated with hazardous substances. Materials encountered during implementation of the selected removal action that are not contaminated with hazardous substances will be dispositioned by the DOE.

level waste, mixed waste, and hazardous/dangerous waste generated as a result of cleanup actions (e.g., removal action waste and investigation-derived waste), provided the waste meets the ERDF waste acceptance criteria and appropriate CERCLA decision documents are in place.

Some of the aqueous waste designated as low-level waste, dangerous, or mixed waste would be transported to the Effluent Treatment Facility for treatment and disposal. The Effluent Treatment Facility is a RCRA-permitted facility authorized to treat aqueous waste streams generated on the Hanford Site and dispose of these streams at a designated state-approved land-disposal facility in accordance with applicable requirements.

Waste designated as PCB remediation waste likely would be disposed at the ERDF, depending on whether it meets the waste acceptance criteria. PCB waste that does not meet ERDF waste acceptance criteria would be retained at a PCB storage area that meets the requirements for TSCA storage and would be transported for future disposal at an appropriate disposal facility.

Asbestos and asbestos-containing material would be removed, packaged as appropriate, and disposed in the ERDF.

CERCLA Section 104(d)(4) states that where two or more noncontiguous facilities are reasonably related on the basis of geography, or on the basis of the threat or potential threat to the public health or welfare or the environment, the facilities can be treated as one for purposes of CERCLA response actions. Consistent with this, the 200-MG-1 OU waste sites and the ERDF would be considered to be onsite, and waste may be transferred between the facilities without requiring a permit.

All alternative actions can be performed in compliance with the waste management ARARs. Waste streams will be evaluated, designated, and managed in compliance with the ARARs. Before disposal, waste will be managed in a protective manner to prevent releases to the environment or unnecessary exposure to personnel.

C1.3 STANDARDS CONTROLLING EMISSIONS TO THE ENVIRONMENT

The proposed removal action alternatives have the potential to generate both radioactive and toxic/criteria airborne emissions. An air monitoring plan will be written and included in the removal action work plan.

C1.3.1 Radiological Air Emissions

RCW 70.94, "Washington Clean Air Act," requires regulation of radioactive air pollutants. The state implementing regulation WAC 173-480, "Ambient Air Quality Standards and Emission Limits for Radionuclides," sets standards which are as stringent or more so than the standards under the Federal *Clean Air Act of 1990* and Amendments, and under the Federal implementing regulation, 40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities." The EPA's partial delegation of the 40 CFR 61 authority to the State of Washington includes all substantive emissions monitoring, abatement, and reporting aspects of the federal regulation. The state standards protect the public by conservatively establishing exposure standards applicable to the maximally exposed public individual. Under WAC 246-247-030(15), "Definitions," the "maximally exposed individual" is any member of the public (real or hypothetical) who abides or resides in an unrestricted area, and

may receive the highest total effective dose equivalent from the emission unit(s) under consideration, taking into account all exposure pathways affected by the radioactive air emissions. All combined radionuclide airborne emissions from the U.S. Department of Energy Hanford Site "facility" are not to exceed amounts that would cause an exposure to any member of the public of greater than 10 mrem/yr effective dose equivalent. The state implementing regulation WAC 246-247, "Radiation Protection – Air Emissions," which adopts the WAC 173-480 standards, and the 40 CFR 61, Subpart H standard, require verification of compliance with the 10 mrem/yr standard, and potentially would be applicable to the removal action.

WAC 246-247 further addresses sources emitting radioactive airborne emissions by requiring monitoring of such sources. Such monitoring requires physical measurement (i.e., sampling) of the effluent or ambient air. The substantive provisions of WAC 246-247 that require monitoring of radioactive airborne emissions potentially would be applicable to the removal action.

The above state implementing regulations further address control of radioactive airborne emissions where economically and technologically feasible [WAC 246-247-040(3) and -040(4), "General Standards," and associated definitions]. To address the substantive aspect of these potential requirements, best or reasonably achieved control technology could be addressed by ensuring that applicable emission control technologies (those successfully operated in similar applications) would be used when economically and technologically feasible (i.e., based on cost/benefit). If it is determined that there are substantive aspects of the requirement for control of radioactive airborne emissions once ARARs are finalized, then controls will be administered as appropriate using the best methods from among those that are reasonable and effective.

C1.3.2 Criteria/Toxic Air Emissions

Under WAC 173-400, "General Regulations for Air Pollution Sources," and WAC 173-460, "Controls for New Sources of Toxic Air Pollutants," requirements are established for the regulation of emissions of criteria/toxic air pollutants. The primary nonradioactive emissions resulting from this removal action will be fugitive particulate matter. In accordance with WAC 173-400-040, "General Standards for Maximum Emissions," reasonable precautions must be taken to (1) prevent the release of air contaminants associated with fugitive emissions resulting from excavation, materials handling, or other operations; and (2) prevent fugitive dust from becoming airborne from fugitive sources of emissions. The use of treatment technologies that would result in emissions of toxic air pollutants that would be subject to the substantive applicable requirements of WAC 173-460 are not anticipated to be a part of this removal action. Treatment of some waste encountered during the removal action may be required to meet ERDF waste acceptance criteria. In most cases, the type of treatment anticipated would consist of solidification/stabilization techniques such as macroencapsulation or grouting, and WAC 173-460 would not be considered an ARAR. If more aggressive treatment is required that would result in the emission of regulated air pollutants, the substantive requirements of WAC 173-400-113(2), "Requirements for New Sources in Attainment or Unclassifiable Areas," and WAC 173-460-060, "Control Technology Requirements," would be evaluated to determine applicability.

Emissions to the air will be minimized during implementation of the removal action through use of standard industry practices such as the application of water sprays and fixatives. These

techniques are considered to be reasonable precautions to control fugitive emissions as required by the regulatory standards.

Table C-1. Identification of Potential Federal Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites.

	ARAR or TBC	Requirement	Rationale for Use
<i>Archaeological and Historic Preservation Act of 1976</i> , 16 USC 469aa-mm	ARAR	Requires that removal actions at the 200 North Area do not cause the loss of any archaeological or historic data. This act mandates preservation of the data and does not require protection of the actual site.	Archeological and historic sites have been identified within the 100 and 200 Areas; therefore, the substantive requirements of this act are potentially applicable to actions that might disturb these sites. This requirement is location-specific.
<i>National Historic Preservation Act of 1966</i> , 16 USC 470, Section 106	ARAR	Requires Federal agencies to consider the impacts of their undertaking on cultural properties through identification, evaluation and mitigation processes, and consultation with interested parties.	Cultural and historic sites have been identified within the 100 and 200 Areas; therefore, the substantive requirements of this act are potentially applicable to actions that might disturb these types of sites. This requirement is location-specific.
<i>Native American Graves Protection and Repatriation Act</i> , 25 USC 3001, et seq.	ARAR	Establishes Federal agency responsibility for discovery of human remains, associated and unassociated funerary objects, sacred objects, and items of cultural patrimony.	Substantive requirements of this act are potentially applicable if remains and sacred objects are found during removal action and will require Native American Tribal consultation in the event of discovery. This requirement is location-specific.
<i>Endangered Species Act of 1973</i> , 16 USC 1531 et seq, subsection 16 USC 1536(c)	ARAR	Prohibits actions by Federal agencies that are likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification or critical habitat. If the removal action is within critical habitat or buffer zones surrounding threatened or endangered species, mitigation measures must be taken to protect the resource.	Substantive requirements of this act are potentially applicable if threatened or endangered species are identified in areas where removal actions will occur. This requirement is location-specific.
"Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," 40 CFR 761			
"Applicability," Specific Subsections: 40 CFR 761.50(b)(1) 40 CFR 761.50(b)(2) 40 CFR 761.50(b)(3) 40 CFR 761.50(b)(4) 40 CFR 761.50(b)(7) 40 CFR 761.50(c)	ARAR	These regulations establish standards for the storage and disposal of PCB wastes.	The substantive requirements of these regulations are applicable to the storage and disposal of PCB wastes (e.g., liquids, items, remediation waste, and bulk product waste) at ≥ 50 ppm. The specific subsections identified from 40 CFR 761.50(b) reference the specific sections for the management of PCB waste type. The disposal requirements for radioactive PCB waste are addressed in 40 CFR 761.50(b)(7). This is a chemical-specific requirement.

ARAR = applicable or relevant and appropriate requirement.

CFR = Code of Federal Regulations.

TBC = to-be-considered.

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
Regulations Pursuant to the <i>Resource Conservation and Recovery Act of 1976</i> and Implemented Through WAC 173-303, "Dangerous Waste Regulations."			
"Identifying Solid Waste," WAC 173-303-016	ARAR	Identifies those materials that are and are not solid waste.	Substantive requirements of these regulations are potentially applicable because they define how to determine which materials are subject to the designation regulations. Specifically, materials that are generated for removal from the CERCLA site during the removal action potentially would be subject to the procedures for identifying solid waste to ensure proper management. This requirement is action-specific.
"Designation of Dangerous Waste," "Designation Procedures," WAC 173-303-070(3)	ARAR	Establishes the method for determining whether a solid waste is or is not a dangerous waste or an extremely hazardous waste.	Substantive requirements of these regulations are potentially applicable to materials encountered during the removal action. Specifically, solid waste generated for removal from the CERCLA site during this removal action potentially would be subject to the dangerous waste designation procedures to ensure proper management. This requirement is action-specific.
"Excluded Categories of Waste," WAC 173-303-071	ARAR	Describes those waste categories that are excluded from the requirements of WAC 173-303 (excluding WAC 173-303-050).	The conditions of this requirement are potentially applicable to this removal action if wastes identified in WAC 173-303-071 are encountered. This requirement is action-specific.
"Conditional Exclusion of Special Wastes," WAC 173-303-073	ARAR	Establishes the conditional exclusion and the management requirements of special wastes, as defined in WAC 173-303-040.	Substantive requirements of these regulations are potentially applicable to materials encountered during the removal action. Specifically, the substantive standards for management of special waste are potentially applicable to the interim management of certain waste that will be generated during the removal action. This requirement is action-specific.
"Requirements for Universal Waste," WAC 173-303-077	ARAR	Identifies waste exempted from regulation under WAC 173-303-140 and WAC 173-303-170 through 173-303-9907 (excluding WAC 173-303-960). This waste is subject to regulation under WAC 173-303-573.	Substantive requirements of these regulations are potentially applicable to materials encountered during the removal action. Specifically, the substantive standards for management of universal waste are potentially applicable to the interim management of certain waste that will be generated during the removal action. This requirement is action-specific.

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
"Land Disposal Restrictions and Prohibitions," WAC 173-303-140(4)	ARAR	This regulation establishes state standards for land disposal of dangerous waste and incorporates, by reference, the Federal land-disposal restrictions of 40 CFR 268 that are applicable to solid waste designated as dangerous or mixed waste in accordance with WAC 173-303-070(3).	The substantive requirements of this regulation are potentially applicable to materials encountered during the removal action. Specifically, dangerous and/or mixed waste that is generated and removed from the CERCLA site during the removal action for offsite (as defined by CERCLA) land disposal potentially would be subject to the identification of applicable land-disposal restrictions at the point of waste generation. The actual offsite treatment of such waste would not be an ARAR to this removal action, but potentially would be subject to all applicable laws and regulations. This requirement is action-specific.
"Requirements for Generators of Dangerous Waste," WAC 173-303-170	ARAR	Establishes the requirements for dangerous waste generators.	Substantive requirements of these regulations are potentially applicable to materials encountered during the removal action. Specifically, the substantive standards for management of dangerous and/or mixed waste are potentially applicable to the interim management of certain waste that will be generated during the removal action. For purposes of this removal action, WAC 173-303-170(3) includes the substantive provisions of WAC 173-303-200 by reference. WAC 173-303-200 further includes certain substantive standards from WAC 173-303-630 and -640 by reference. This requirement is action-specific.
"Corrective Actions," "Requirements," WAC 173-303-64620(a-g)	ARAR	Established the requirements to meet RCRA corrective action.	Sustantive requirements of these regulations are applicable to show consistency between the removal action and RCRA corrective action requirements. This requirement is action and location-specific.
"Dangerous Waste Regulations" WAC 173-303 (as amended, February 2007)			
"Standard Method C Industrial Soil Cleanup Levels," WAC 173-340-745(5)(b) "Terrestrial Ecological Evaluation Procedures," WAC 173-340-7490 "Tables," WAC 173-340-900, Table 749-3	ARAR	Establishes the process and methods used to evaluate risk and to develop cleanup standards for soil and other environmental media.	The substantive requirements of the specified subsections are relevant and appropriate to developing cleanup standards for the selected removal action for the 200-MG-1 Operable Unit. This is a chemical-specific requirement.

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
"General Regulations for Air Pollution Sources," WAC 173-400 and WAC 173-460			
"Washington Clean Air Act," RCW 70.94; State Government – Executive," "Department of Ecology," RCW 43.21A "General Regulations for Air Pollution – Sources," WAC 173-400 Specific subsection: WAC 173-400-040	ARAR	Requires all sources of air contaminants to meet standards for visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, sulfur dioxide, concealment and masking, and fugitive dust. Requires use of reasonably available control technology.	Substantive requirements of the general standards for control of fugitive emissions are potentially applicable to removal actions at the site due to the generation of fugitive dust that occurs during excavation or other types of construction activities. These requirements are action-specific.
Specific subsections: WAC 173-400-050, "Emission Standards for Combustion and Incineration Units" WAC 173-400-060, "Emission Standards for General Process Units" WAC 173-400-070, "Emission Standards for Certain Source Categories" WAC 173-400-075, "Emission Standards for Sources Emitting Hazardous Air Pollutants"	ARAR	Requires specifically identified types of emission sources to meet additional standards beyond the general emission standards imposed by WAC 173-400-040. Incorporates the applicable Federal requirements from 40 CFR 60 and 40 CFR 63. Requires use of either reasonably available control technology, best available control technology, or maximum achievable control technology, depending on the specific type of emission source.	The selected alternative may include or result in one or more defined types of emission sources that would need to be controlled in accordance with these requirements. These requirements are action-specific.
Specific subsection: WAC 173-400-113	ARAR	Incorporates by reference the applicable Federal requirements from 40 CFR 60 (new source performance standards), 40 CFR 61 (national emission standards for hazardous air pollutants), and 40 CFR 63 (minimum available control technology). Requires controls to minimize the release of air contaminants resulting from new or modified sources of regulated criteria and toxic air emissions. Emissions are to be minimized through application of best available control technology.	Substantive requirements of this regulation potentially would be applicable to removal actions performed at the site if a treatment technology that emits regulated air emissions were necessary during the implementation of the removal action. This requirement is action-specific.

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
"Controls for New Sources of Toxic Air Pollutants," WAC 173-460 Specific subsections: WAC 173-460-030 WAC 173-460-060 WAC 173-460-070 WAC 173-460-080 WAC 173-460-150 WAC 173-460-160	ARAR	Requires best available control technology for regulated emissions of toxic air pollutants (T-BACT) and demonstration that emissions of toxic air pollutants will not endanger human health or safety.	Substantive requirements of these regulations potentially would be applicable to removal actions performed at the site, if a treatment technology that emits toxic air emissions were necessary during the implementation of the removal action. These requirements are action-specific.
"Asbestos" Benton Clean Air Agency (BCAA), Regulation 1, Article 8			
Section 8.02 "CFR Adoption by Reference"; Section 8.03 "General Requirements"	ARAR	Incorporates the Federal requirements of 40 CFR 61, Subpart M. Requires established controls and work practices for managing and disposing regulated asbestos-containing material.	The removal action may include the removal or disturbance of regulated asbestos containing material that must be conducted in accordance with the applicable requirements and work practices. This requirement is action-specific.
"Radiation Protection – Air Emissions," WAC 246-247			
"National Standards Adopted by Reference for Sources of Radionuclide Emissions," WAC 246-247-035(1)(a)(ii)	ARAR	Establishes requirements equivalent to 40 CFR 61, Subpart H, by reference. Radionuclide airborne emissions from the waste site shall be controlled so as not to exceed amounts that would cause an exposure to any member of the public of greater than 10 mrem/yr effective dose equivalent.	Substantive requirements of this standard are potentially applicable because this removal action may include activities such as excavation, demolition, decontamination and stabilization of contaminated areas and equipment, each of which may provide airborne emissions of radioactive particulates to unrestricted areas. As a result, requirements limiting emissions potentially apply. This is a risk-based standard for the purposes of protecting human health and the environment. This requirement is action-specific.
"General Standards," WAC 246-247-040(3) WAC 246-247-040(4)	ARAR	Emissions shall be controlled to ensure that emission standards are not exceeded. Actions creating new sources or significantly modified sources shall apply best available controls. All other actions shall apply reasonably achievable controls.	Substantive requirements of this standard are potentially applicable because fugitive, diffuse and point source emissions of radionuclides to the ambient air may result from activities, such as demolition and excavation of contaminated soils and operation of exhausters and vacuums, performed during the removal action. This standard exists to ensure compliance with emission standards. These requirements are action-specific.

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
<p>"Monitoring, Testing, and Quality Assurance," WAC 246-247-075(1) and –(2) and –(4)</p>	ARAR	<p>Establishes the monitoring, testing, and quality assurance requirements for radioactive air emissions from major sources. Effluent flow rate measurements shall be made and the effluent stream shall be directly monitored continuously with an in-line detector or representative samples of the effluent stream shall be withdrawn continuously from the sampling site following the specified guidance. The requirements for continuous sampling are applicable to batch processes when the unit is in operation. Periodic sampling (grab samples) may be used only with lead agency prior approval. Such approval may be granted in cases where continuous sampling is not practical and radionuclide emission rates are relatively constant. In such cases, grab samples shall be collected with sufficient frequency so as to provide a representative sample of the emissions. When it is impractical to measure the effluent flow rate at a source in accordance with the requirements or to monitor or sample an effluent stream at a source in accordance with the site selection and sample extraction requirements, the waste site owner or operator may use alternative effluent flow rate measurement procedures or site selection and sample extraction procedures as approved by the lead agency. Emissions from nonpoint and fugitive sources of airborne radioactive material shall be measured. Measurement techniques may include, but are not limited to, sampling, calculation, smears, or other reasonable method for identifying emissions as determined by the lead agency.</p>	<p>Substantive requirements of this standard are potentially applicable because fugitive and nonpoint source emissions of radionuclides to the ambient air may result from activities, such as demolition and excavation of contaminated soils and operation of exhausters and vacuums, performed during the removal action. This standard exists to ensure compliance with emission standards. These requirements are action-specific.</p>

Table C-2. Identification of Potential State Applicable or Relevant and Appropriate Requirements and To Be Considered for the Removal Action Sites. (6 Pages)

ARAR Citation	ARAR or TBC	Requirement	Rationale for Use
"Monitoring, Testing, and Quality Assurance," WAC 246-247-075(3)	ARAR	Methods to implement periodic confirmatory monitoring for minor sources may include estimating the emissions or other methods as approved by the lead agency.	Fugitive and diffuse emissions from the demolition and excavation and related activities potentially will require periodic confirmatory measurements to verify low emissions. This requirement is action-specific.
"Monitoring, Testing, and Quality Assurance," WAC 246-247-075(8)	ARAR	Site emissions resulting from nonpoint and fugitive sources of airborne radioactive material shall be measured. Measurement techniques may include ambient air measurements, or in-line radiation detector or withdrawal of representative samples from the effluent stream, or other methods as determined by the lead agency.	Fugitive and diffuse emissions of airborne radioactive material due to demolition and excavation and related activities potentially will require measurement. This requirement is action-specific.
"General Standards," WAC 246-247-040(4) and "General Standards for Maximum Permissible Emissions," WAC 173-480-050(1)	ARAR	At a minimum, all emission units shall make every reasonable effort to maintain radioactive materials in effluents to unrestricted areas, ALARA. Control equipment of sites operating under ALARA shall be defined as reasonably available control technology and as low as reasonably achievable control technology.	The potential for fugitive and diffuse emissions due to demolition and excavation and related activities potentially will require efforts to minimize those emissions. This requirement is action-specific.
"Emission Monitoring and Compliance Procedures," WAC 173-480-070-(2)	ARAR	Determine compliance with the public dose standard by calculating exposure at the point of maximum annual air concentration in an unrestricted area where any member of the public may be.	Fugitive and diffuse emissions resulting from demolition and excavation and related activities potentially will require assessment and reporting. This requirement is action-specific.

ALARA = as low as reasonably achievable.

ARAR = applicable or relevant and appropriate requirement.

CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980.*CFR = *Code of Federal Regulations.*

T-BACT = toxics – best available control technology.

TBC = to be considered.

WAC = *Washington Administrative Code.*

C2.0 REFERENCES

- 40 CFR 60, "Standards of Performance for New Stationary Sources," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 61, "National Emission Standards for Hazardous Air Pollutants," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities."
 - 40 CFR 61, Subpart M, "National Emission Standards for Asbestos."
- 40 CFR 63, "National Emission Standards for Hazardous Air Pollutants for Source Categories," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 268, "Land Disposal Restrictions," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 300.400(e), "Permit Requirements," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 300.440, "Procedures for Planning and Implementing Off-site Response Actions," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," *Code of Federal Regulations*. <http://www.epa.gov/lawsregs/search/40cfr.html>
- 40 CFR 761.50(b), "Applicability," "PCB Waste."
 - 40 CFR 761.50(c), "Applicability," "Storage for Disposal."
- Archaeological and Historic Preservation Act of 1976*, 16 USC 469aa-mm, et seq. <http://www.olfcis.com/documents/regulations/ArchaeologicalAndHistoricPreservationActOf1974.pdf>
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- 173-303-016, "Identifying Solid Waste."
- 173-303-040, "Definitions."
- 173-303-050, "Department of Ecology Cleanup Authority."
- 173-303-070(3), "Designation of Dangerous Waste," "Designation Procedures."
- 173-303-071, "Excluded Categories of Waste."
- 173-303-073, "Conditional Exclusion of Special Wastes."
- 173-303-077, "Requirements for Universal Waste."
- 173-303-140, "Land Disposal Restrictions."
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- 173-340-7490, "Terrestrial Ecological Evaluation Procedures."

WAC 173-400, "General Regulations for Air Pollution Sources," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.
<http://apps.leg.wa.gov/wac/>

- 173-400-040, "General Standards for Maximum Emissions."
- 173-400-050, "Emission Standards for Combustion and Incineration Units."
- 173-400-060, "Emission Standards for General Process Units."
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- 173-460-070, "Ambient Impact Requirement."
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- 246-247-040, "General Standards."
- 246-247-075, "Monitoring, Testing, and Quality Assurance."

WCH-191, 2008, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*,
Rev. 0, Washington Closure Hanford, Richland, Washington.
<http://www2.hanford.gov/arpir/?content=findpage&AKey=DA05739818>

APPENDIX D

PRESENT-WORTH COST SUMMARY

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APPENDIX D

PRESENT-WORTH COST SUMMARY

This appendix contains the present-worth cost summary generated from SGW-38383, *Cost Estimate for the 200-MG-1 Operable Unit Engineering Evaluation/Cost Analysis Removal Actions*. Table D-1 provides the nondiscounted costs and total present-worth costs for the preferred alternatives (discussed in Chapter 4.0) for each waste site. Waste sites that included septic tanks and tile fields were costed separately because remedial alternative may vary.

REFERENCE

SGW-38383, 2008, *Cost Estimate for the 200-MG-1 Operable Unit Engineering Evaluation/Cost Analysis Removal Actions*, Rev. 0, Fluor Hanford, Inc., Richland, Washington.
<http://www5.hanford.gov/arpir/?content=detail&AKey=0809231026>

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
200-CP	Pit/Dumping Area	\$0	\$2,787,367	\$727,949	\$706,457	\$706,457	\$348,206	\$346,807
200-E BP	Burn Pit	\$0	\$3,253,931	\$837,270	\$905,610	\$905,610	\$460,960	\$458,596
200-E PD	Ditch	\$0	\$1,622,392	\$489,056	\$1,026,266	\$1,026,266	\$330,543	\$329,718
200-E-1	Dumping Area	\$0	\$1,622,392	\$489,056	\$401,724	\$401,724	\$168,530	\$167,966
200-E-101	Experiment	\$0	\$1,627,027	\$493,691	\$636,223	\$636,223	\$180,118	\$179,554
200-E-103	Unplanned Release	\$0	\$8,675,300	\$2,107,558	\$2,176,448	\$2,176,448	\$614,568	\$609,258
200-E-107	Unplanned Release	\$0	\$2,703,278	\$690,257	\$753,112	\$753,112	\$242,481	\$241,082
200-E-109	Unplanned Release	\$0	\$1,554,397	\$421,061	\$444,354	\$444,354	\$143,820	\$142,995
200-E-110	Dumping Area	\$0	\$1,554,397	\$421,061	\$163,329	\$163,329	\$86,851	\$86,288
200-E-115	Unplanned Release	\$0	\$1,554,397	\$421,061	\$137,365	\$137,365	\$86,851	\$86,288
200-E-117	Unplanned Release	\$0	\$1,554,397	\$421,061	\$105,428	\$105,428	\$86,851	\$86,288
200-E-121	Unplanned Release	\$0	\$2,583,791	\$678,344	\$641,768	\$641,768	\$242,481	\$241,082
200-E-123	Unplanned Release	\$0	\$1,575,403	\$442,067	\$152,401	\$152,401	\$109,795	\$109,231
200-E-124	Rail Siding	\$0	\$1,577,890	\$444,555	\$505,145	\$505,145	\$122,093	\$121,529
200-E-125	Unplanned Release	\$0	\$1,554,397	\$421,061	\$115,052	\$115,052	\$86,851	\$86,288
200-E-128	Unplanned Release	\$0	\$1,575,403	\$442,067	\$115,681	\$115,681	\$109,795	\$109,231
200-E-129	Unplanned Release	\$0	\$1,554,397	\$421,061	\$118,689	\$118,689	\$86,851	\$86,288
200-E-13	Dumping Area	\$0	\$2,787,367	\$727,949	\$706,457	\$706,457	\$348,206	\$346,807
200-E-130	Rail Siding	\$0	\$1,577,890	\$444,555	\$389,958	\$389,958	\$122,093	\$121,529
200-E-139	Unplanned Release	\$0	\$2,583,430	\$662,175	\$626,314	\$626,314	\$242,481	\$241,082
200-E-2	Unplanned Release	\$0	\$1,622,392	\$489,056	\$754,946	\$754,946	\$168,530	\$167,966
200-E-26	Unplanned Release	\$0	\$1,627,027	\$493,691	\$675,641	\$675,641	\$180,118	\$179,554
200-E-29	Unplanned Release	\$0	\$3,249,740	\$818,299	\$827,877	\$827,877	\$314,000	\$312,353
200-E-43, UPR-200-E-88	Rail Siding	\$0	\$1,577,890	\$444,555	\$902,325	\$902,325	\$202,557	\$201,731
200-E-46	Dumping Area	\$0	\$2,787,367	\$727,949	\$849,558	\$849,558	\$348,206	\$346,807
200-E-53	Unplanned Release	\$0	\$1,554,397	\$421,061	\$372,571	\$372,571	\$86,851	\$86,288

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
200-E-58	Neutralization Tank	\$0	\$1,627,027	\$493,691	\$479,781	\$479,781	\$180,118	\$179,554
200-E-6	Septic Tank	\$0	\$1,627,027	\$493,691	\$462,832	\$462,832	\$180,118	\$179,554
200-E-7	Septic Tank	\$0	\$1,622,392	\$489,056	\$410,580	\$410,580	\$168,530	\$167,966
200-E-7	Septic Tile field	\$0	\$1,577,890	\$444,555	\$443,863	\$443,863	\$122,093	\$121,529
200-W-1	Mud Pit	\$0	\$1,577,890	\$444,555	\$393,769	\$393,769	\$122,093	\$121,529
200-W-101	Dumping Area	\$0	\$1,554,397	\$421,061	\$246,152	\$246,152	\$86,851	\$86,288
200-W-106	Unplanned Release	\$0	\$1,554,397	\$421,061	\$269,296	\$269,296	\$86,851	\$86,288
200-W-11	Dumping Area	\$0	\$1,741,479	\$482,885	\$665,836	\$665,836	\$202,557	\$201,731
200-W-12	Dumping Area	\$0	\$1,622,392	\$489,056	\$148,702	\$148,702	\$168,530	\$167,966
200-W-14	Dumping Area	\$0	\$1,622,392	\$489,056	\$483,719	\$483,719	\$168,530	\$167,966
200-W-2	Spoils Pile/Berm	\$0	\$1,627,027	\$493,691	\$614,324	\$614,324	\$180,118	\$179,554
200-W-21	Rail Siding	\$0	\$1,622,392	\$489,056	\$611,831	\$611,831	\$168,530	\$167,966
200-W-22	Foundations/Unplanned Release	\$0	\$2,023,809	\$549,038	\$1,849,956	\$1,849,956	\$290,628	\$289,557
200-W-3	Dumping Area	\$0	\$2,827,316	\$737,309	\$728,314	\$728,314	\$390,278	\$388,871
200-W-33	Dumping Area	\$0	\$9,141,864	\$2,216,879	\$1,842,207	\$1,842,207	\$602,239	\$597,427
200-W-51	Septic Tank	\$0	\$1,622,392	\$489,056	\$345,982	\$345,982	\$168,530	\$167,966
200-W-51	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$414,686	\$414,686	\$122,093	\$121,529
200-W-53	Unplanned Release	\$0	\$2,988,057	\$756,984	\$765,247	\$765,247	\$310,510	\$309,005
200-W-54	Unplanned Release	\$0	\$11,738,411	\$2,807,291	\$2,210,187	\$2,210,187	\$511,737	\$505,512
200-W-55	Dumping Area	\$0	\$1,577,890	\$444,555	\$310,113	\$310,113	\$122,093	\$121,529
200-W-6	Dumping Area	\$0	\$1,627,027	\$493,691	\$795,175	\$795,175	\$180,118	\$179,554
200-W-63	Unplanned Release	\$0	\$1,554,397	\$421,061	\$317,210	\$317,210	\$86,851	\$86,288
200-W-64	Foundation	\$0	\$1,554,397	\$421,061	\$870,874	\$870,874	\$86,851	\$86,288
200-W-67	Unplanned Release	\$0	\$1,554,397	\$421,061	\$286,666	\$286,666	\$86,851	\$86,288
200-W-75	Experiment/Test Site	\$0	\$1,575,403	\$442,067	\$358,267	\$358,267	\$109,795	\$109,231
200-W-80	Spoils Pile/Berm	\$0	\$1,554,397	\$421,061	\$278,835	\$278,835	\$86,851	\$86,288

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MES/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
200-W-81; UPR-200-W-58	Rail Siding	\$0	\$4,200,381	\$1,059,034	\$2,084,352	\$2,084,352	\$455,580	\$453,433
200-W-82	Pump Station/ Product Piping	\$0	\$1,622,392	\$489,056	\$428,176	\$428,176	\$168,530	\$167,966
200-W-83, UPR-200-W-41, - 44, -46	Rail Siding	\$0	\$5,653,083	\$1,399,419	\$2,775,442	\$2,775,442	\$530,171	\$527,240
200-W-86	Unplanned Release	\$0	\$1,554,397	\$421,061	\$106,043	\$106,043	\$86,851	\$86,288
200-W-90	Unplanned Release	\$0	\$1,554,397	\$421,061	\$105,981	\$105,981	\$86,851	\$86,288
200-W-92	Dumping Area	\$0	\$1,622,392	\$489,056	\$633,173	\$633,173	\$168,530	\$167,966
200-W ADB	Coal Ash Pit	\$0	\$2,787,367	\$727,949	\$706,457	\$706,457	\$348,206	\$346,807
200-W BP	Burn Pit	\$0	\$2,586,278	\$680,831	\$676,113	\$676,113	\$348,206	\$346,807
207-B	Retention Basin	\$0	\$2,088,956	\$598,377	\$2,523,228	\$2,523,228	\$462,876	\$461,800
207-SL	Retention Basin	\$0	\$1,627,027	\$493,691	\$690,264	\$690,264	\$180,118	\$179,554
209-E-WS-3	Valve Pit	\$0	\$1,575,403	\$442,067	\$316,301	\$316,301	\$109,795	\$109,231
216-A-1	Crib	\$0	\$1,627,027	\$493,691	\$1,051,081	\$1,051,081	\$180,118	\$179,554
216-A-18	Trench	\$0	\$1,627,027	\$493,691	\$1,028,266	\$1,028,266	\$180,118	\$179,554
216-A-20	Trench	\$0	\$1,627,027	\$493,691	\$612,062	\$612,062	\$180,118	\$179,554
216-A-28	Crib	\$0	\$1,627,027	\$493,691	\$405,418	\$405,418	\$180,118	\$179,554
216-A-3	Crib	\$0	\$1,627,027	\$493,691	\$868,437	\$868,437	\$180,118	\$179,554
216-A-34	Ditch	\$0	\$1,627,027	\$493,691	\$1,378,122	\$1,378,122	\$180,118	\$179,554
216-A-40	Retention Basin	\$0	\$1,627,027	\$493,691	\$1,589,113	\$1,589,113	\$180,118	\$179,554
216-A-42	Retention Basin	\$0	\$1,627,027	\$493,691	\$4,575,431	\$4,575,431	\$180,118	\$179,554
216-A-9	Crib	\$0	\$1,627,027	\$493,691	\$4,374,203	\$4,374,203	\$318,877	\$318,051
216-B-2-1	Ditch	\$0	\$1,627,027	\$493,691	\$2,481,250	\$2,481,250	\$318,877	\$318,051
216-B-2-2	Ditch	\$0	\$1,627,027	\$493,691	\$2,481,250	\$2,481,250	\$318,877	\$318,051
216-B-2-3	Ditch	\$0	\$1,771,312	\$527,499	\$2,793,408	\$2,793,408	\$318,877	\$318,051
216-B-3-1	Ditch	\$0	\$1,622,392	\$489,056	\$2,085,506	\$2,085,506	\$318,877	\$318,051

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
216-B-3-2	Ditch	\$0	\$1,846,576	\$541,585	\$2,448,769	\$2,448,769	\$462,876	\$461,800
216-B-3-3	Ditch	\$0	\$1,622,392	\$489,056	\$1,828,449	\$1,828,449	\$180,118	\$179,554
216-B-59 / 59B	Trench/ Retention Basin	\$0	\$3,382,965	\$905,127	\$2,278,447	\$2,278,447	\$725,327	\$723,648
216-C-10	Crib	\$0	\$1,627,027	\$493,691	\$518,837	\$518,837	\$180,118	\$179,554
216-C-3	Crib	\$0	\$1,627,027	\$493,691	\$497,379	\$497,379	\$180,118	\$179,554
216-C-5	Crib	\$0	\$1,627,027	\$493,691	\$532,679	\$532,679	\$180,118	\$179,554
216-C-6	Crib	\$0	\$1,627,027	\$493,691	\$517,739	\$517,739	\$180,118	\$179,554
216-C-7	Crib	\$0	\$1,627,027	\$493,691	\$516,282	\$516,282	\$180,118	\$179,554
216-C-9	Pond	\$0	\$15,859,721	\$3,822,445	\$12,740,389	\$12,740,389	\$1,145,599	\$1,137,449
216-S-16D	Ditch	\$0	\$1,622,392	\$489,056	\$885,319	\$885,319	\$168,530	\$167,966
216-S-19	Pond	\$0	\$8,357,574	\$2,067,186	\$5,798,659	\$5,798,659	\$881,982	\$877,617
216-S-22	Crib	\$0	\$1,627,027	\$493,691	\$599,920	\$599,920	\$180,118	\$179,554
216-S-26	Crib	\$0	\$1,627,027	\$493,691	\$982,758	\$982,758	\$180,118	\$179,554
216-S-4	French Drain	\$0	\$1,627,027	\$493,691	\$556,334	\$556,334	\$180,118	\$179,554
216-S-8	Trench	\$0	\$1,627,027	\$493,691	\$1,281,682	\$1,281,682	\$180,118	\$179,554
216-T-20	Trench/Minor debris	\$0	\$1,622,392	\$489,056	\$163,332	\$163,332	\$168,530	\$167,966
216-T-4A	Pond	\$0	\$11,444,179	\$2,790,412	\$7,838,639	\$7,838,639	\$1,407,358	\$1,385,602
216-Z-4	Trench	\$0	\$1,627,027	\$493,691	\$447,048	\$447,048	\$180,118	\$179,554
216-Z-6	Crib	\$0	\$1,627,027	\$493,691	\$494,782	\$494,782	\$180,118	\$179,554
218-E-7	Vault	\$0	\$1,622,392	\$489,056	\$4,741,332	\$4,741,332	\$318,877	\$318,051
218-W-7	Vault	\$0	\$1,622,392	\$489,056	\$540,815	\$540,815	\$318,877	\$318,051
218-W-8	Vault	\$0	\$1,622,392	\$489,056	\$800,087	\$800,087	\$318,877	\$318,051
218-W-9	Burial Ground	\$0	\$1,622,392	\$489,056	\$1,011,900	\$1,011,900	\$318,877	\$318,051
231-W-151	Vault w/tanks	\$0	\$1,622,392	\$489,056	\$1,742,992	\$1,742,992	\$318,877	\$318,051
2607-E1	Septic Tank	\$0	\$1,627,027	\$493,691	\$468,616	\$468,616	\$180,118	\$179,554
2607-E1	Tile field-Two	\$0	\$4,305,477	\$973,495	\$1,537,124	\$1,537,124	\$688,832	\$686,660
2607-E12	Septic Tanks/Pipeline	\$0	\$3,121,282	\$843,812	\$748,881	\$748,881	\$721,787	\$720,250

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
2607-E12	Tile field-Two	\$0	\$4,970,680	\$1,273,598	\$1,943,872	\$1,943,872	\$697,836	\$695,300
2607-E3	Septic Tank	\$0	\$1,627,027	\$493,691	\$462,832	\$462,832	\$180,118	\$179,554
2607-E3	Septic Tank Tile field	\$0	\$3,398,976	\$905,330	\$3,721,789	\$3,721,789	\$676,935	\$675,245
2607-E4	Septic Tank	\$0	\$1,622,392	\$489,056	\$341,235	\$341,235	\$168,530	\$167,966
2607-E4	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$414,686	\$414,686	\$109,795	\$109,231
2607-E5	Septic Tank	\$0	\$1,627,027	\$493,691	\$462,832	\$462,832	\$180,118	\$179,554
2607-E5	Septic Tank Tile field	\$0	\$1,622,392	\$489,056	\$565,748	\$565,748	\$168,530	\$167,966
2607-E6	Septic Tank	\$0	\$1,627,027	\$493,691	\$457,259	\$457,259	\$180,118	\$179,554
2607-E6	Septic Tank Tile field	\$0	\$3,434,373	\$879,550	\$2,570,189	\$2,570,189	\$445,367	\$443,633
2607-E7A	Septic Tank	\$0	\$1,622,392	\$489,056	\$345,982	\$345,982	\$168,530	\$167,966
2607-E7B	Septic Tank	\$0	\$1,622,392	\$489,056	\$345,982	\$345,982	\$168,530	\$167,966
2607-E9	Septic Tank	\$0	\$1,577,890	\$444,555	\$311,318	\$311,318	\$168,530	\$167,966
2607-E9	Septic Tank Tile field	\$0	\$1,622,392	\$489,056	\$436,294	\$436,294	\$168,530	\$167,966
2607-EA	Septic Tank	\$0	\$1,622,392	\$489,056	\$286,975	\$286,975	\$168,530	\$167,966
2607-EA	Septic Tank Tile field	\$0	\$1,622,392	\$489,056	\$342,213	\$342,213	\$168,530	\$167,966
2607-EE	Septic Tank	\$0	\$1,622,392	\$489,056	\$345,982	\$345,982	\$109,795	\$109,231
2607-EE	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$414,686	\$414,686	\$122,093	\$121,529
2607-W1	Septic Tank	\$0	\$1,627,027	\$493,691	\$579,704	\$579,704	\$180,118	\$179,554
2607-W1	Septic Tank Tile field	\$0	\$22,633,635	\$5,412,228	\$5,394,832	\$5,394,832	\$1,179,603	\$1,167,541
2607-W3	Septic Tank	\$0	\$1,627,027	\$493,691	\$462,832	\$462,832	\$180,118	\$179,554
2607-W3	Septic Tank Tile field	\$0	\$1,622,392	\$489,056	\$1,573,995	\$1,573,995	\$330,543	\$329,718
2607-W4	Septic Tank	\$0	\$1,622,392	\$489,056	\$341,320	\$341,320	\$109,795	\$109,231
2607-W4	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$297,209	\$297,209	\$122,093	\$121,529
2607-W6	Septic Tanks/Pipeline	\$0	\$1,627,027	\$493,691	\$560,239	\$560,239	\$318,877	\$318,051
2607-W6	Septic Tank Tile field	\$0	\$4,527,211	\$1,169,688	\$2,707,021	\$2,707,021	\$691,795	\$689,503
2607-W8	Septic Tank	\$0	\$1,627,027	\$493,691	\$437,509	\$437,509	\$180,118	\$179,554
2607-W8	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$682,591	\$682,591	\$430,272	\$429,196

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
2607-W9	Septic Tank	\$0	\$1,627,027	\$493,691	\$422,287	\$422,287	\$180,118	\$179,554
2607-W9	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$682,591	\$682,591	\$430,272	\$429,196
2607-WC	Septic Tank	\$0	\$1,622,392	\$489,056	\$434,710	\$434,710	\$168,530	\$167,966
2607-WC	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$408,336	\$408,336	\$122,093	\$121,529
2607-WL	Septic Tank	\$0	\$1,627,027	\$493,691	\$822,118	\$822,118	\$180,118	\$179,554
2607-WL	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$682,591	\$682,591	\$430,272	\$429,196
2607-WZ	Septic Tank	\$0	\$1,622,392	\$489,056	\$345,982	\$345,982	\$109,795	\$109,231
2607-WZ	Septic Tank Tile field	\$0	\$1,577,890	\$444,555	\$414,686	\$414,686	\$122,093	\$121,529
2607-Z	Septic Tank	\$0	\$1,627,027	\$493,691	\$570,272	\$570,272	\$180,118	\$179,554
2607-Z	Septic Tank Tile field	\$0	\$2,686,822	\$704,390	\$2,078,461	\$2,078,461	\$573,687	\$572,288
2607-Z1	Septic Tank	\$0	\$1,622,392	\$489,056	\$322,459	\$322,459	\$168,530	\$167,966
2607-Z1	Septic Tank Tile field	\$0	\$1,622,392	\$489,056	\$405,716	\$405,716	\$168,530	\$167,966
270-E-1	Neutralization Tank	\$0	\$1,627,027	\$493,691	\$482,113	\$482,113	\$180,118	\$179,554
291-C-1	Burial Ground	\$0	\$1,575,403	\$442,067	\$730,479	\$730,479	\$109,795	\$109,231
600-218	Dumping Area	\$0	\$1,577,890	\$444,555	\$688,601	\$688,601	\$202,557	\$201,731
600-220	Dumping Area	\$0	\$3,011,551	\$780,478	\$1,127,389	\$1,127,389	\$647,801	\$637,879
600-222	Military Compound	\$0	\$5,085,975	\$1,266,539	\$1,126,563	\$1,126,563	\$538,141	\$532,731
600-226	Dumping Area	\$0	\$1,577,890	\$444,555	\$131,301	\$131,301	\$122,093	\$121,529
600-228	Dumping Area	\$0	\$1,577,890	\$444,555	\$294,800	\$294,800	\$122,093	\$121,529
600-262	Crib	\$0	\$1,627,027	\$493,691	\$392,650	\$392,650	\$180,118	\$179,554
600-275	Foundation-Removed	\$0	\$2,023,809	\$549,038	\$588,899	\$588,899	\$430,272	\$429,196
600-281	Dumping Area	\$0	\$1,622,392	\$489,056	\$442,258	\$442,258	\$168,530	\$167,966
600-36	Burn Pit	\$0	\$1,577,890	\$444,555	\$466,255	\$466,255	\$202,557	\$201,731
600-37	French Drain/Tanks	\$0	\$1,627,027	\$493,691	\$595,311	\$595,311	\$180,118	\$179,554
600-38	Dumping Area	\$0	\$3,656,107	\$931,504	\$886,287	\$886,287	\$448,323	\$446,470
600-40	Dumping Area	\$0	\$1,577,890	\$444,555	\$168,294	\$168,294	\$122,093	\$121,529
600-51	Dumping Area	\$0	\$1,577,890	\$444,555	\$130,847	\$130,847	\$122,093	\$121,529

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
600-65	Dumping Area	\$0	\$1,577,890	\$444,555	\$132,116	\$132,116	\$122,093	\$121,529
600-66	Dumping Area	\$0	\$1,577,890	\$444,555	\$131,078	\$131,078	\$122,093	\$121,529
600-70	Dumping Area	\$0	\$2,787,367	\$727,949	\$1,800,303	\$1,800,303	\$348,206	\$346,807
600-71	Burn Pit	\$0	\$1,577,890	\$444,555	\$416,717	\$416,717	\$122,093	\$121,529
600 OCL	Sanitary Landfill	\$0	\$1,627,027	\$493,691	\$2,383,340	\$2,383,340	\$202,557	\$201,731
CTFN 2703-E	Drain Field	\$0	\$1,766,677	\$522,864	\$914,308	\$914,308	\$202,557	\$201,731
OCSA	Foundations	\$0	\$14,663,778	\$3,510,727	\$6,558,485	\$6,558,485	\$728,523	\$720,733
UPR-200-E-10; -11; -12; -20; -33	Rail Siding	\$0	\$9,505,707	\$2,202,397	\$4,972,116	\$4,972,116	\$615,115	\$609,859
UPR-200-E-101	Unplanned Release	\$0	\$1,554,397	\$421,061	\$240,504	\$240,504	\$86,851	\$86,288
UPR-200-E-112	Rail Siding	\$0	\$2,929,610	\$661,543	\$2,443,777	\$2,443,777	\$440,812	\$439,263
UPR-200-E-143	Unplanned Release	\$0	\$3,069,298	\$776,019	\$724,034	\$724,034	\$311,594	\$310,044
UPR-200-E-2	Unplanned Release	\$0	\$2,020,961	\$530,382	\$549,749	\$549,749	\$208,482	\$207,407
UPR-200-E-28	Unplanned Release	\$0	\$1,577,890	\$444,555	\$133,127	\$133,127	\$122,093	\$121,529
UPR-200-E-35	Unplanned Release	\$0	\$1,622,392	\$489,056	\$441,346	\$441,346	\$168,530	\$167,966
UPR-200-E-37	Unplanned Release	\$0	\$9,580,296	\$2,301,620	\$1,830,098	\$1,830,098	\$457,439	\$452,384
UPR-200-E-39	Unplanned Release	\$0	\$1,622,392	\$489,056	\$136,580	\$136,580	\$168,530	\$167,966
UPR-200-E-43	Unplanned Release	\$0	\$1,575,403	\$442,067	\$143,359	\$143,359	\$109,795	\$109,231
UPR-200-E-50	Unplanned Release	\$0	\$2,140,808	\$558,464	\$568,511	\$568,511	\$208,482	\$207,407
UPR-200-E-52	Unplanned Release	\$0	\$1,577,890	\$444,555	\$148,166	\$148,166	\$122,093	\$121,529
UPR-200-E-54	Unplanned Release	\$0	\$1,577,890	\$444,555	\$297,011	\$297,011	\$122,093	\$121,529
UPR-200-E-55	Unplanned Release	\$0	\$1,554,397	\$421,061	\$134,369	\$134,369	\$86,851	\$86,288
UPR-200-E-62	Unplanned Release	\$0	\$1,554,397	\$421,061	\$105,260	\$105,260	\$86,851	\$86,288
UPR-200-E-64	Unplanned Release	\$0	\$2,787,367	\$727,949	\$850,711	\$850,711	\$348,206	\$346,807
UPR-200-E-66	Unplanned Release	\$0	\$2,723,924	\$695,094	\$760,218	\$760,218	\$242,481	\$241,082
UPR-200-E-69	Rail Siding	\$0	\$1,577,890	\$444,555	\$755,423	\$755,423	\$202,557	\$201,731
UPR-200-E-89	Unplanned Release	\$0	\$1,577,890	\$444,555	\$565,627	\$565,627	\$202,557	\$201,731

Table D-1. Present-Worth Cost Summary.

Waste Site Code/ Grouping	Site Type	No Action	MESC/IC/MNA		RTD		CS/NFA	
			Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost	Nondiscounted Cost	Total Present- Worth Cost
UPR-200-E-95	Rail Siding	\$0	\$1,577,890	\$444,555	\$821,400	\$821,400	\$122,093	\$121,529
UPR-200-E-98	Unplanned Release	\$0	\$1,554,397	\$421,061	\$105,801	\$105,801	\$86,851	\$86,288
UPR-200-W-101	Unplanned Release	\$0	\$1,622,392	\$489,056	\$575,889	\$575,889	\$168,530	\$167,966
UPR-200-W-116	Unplanned Release	\$0	\$2,663,329	\$680,896	\$735,868	\$735,868	\$242,481	\$241,082
UPR-200-W-165	Unplanned Release	\$0	\$2,763,873	\$704,455	\$654,597	\$654,597	\$242,481	\$241,082
UPR-200-W-23	Unplanned Release	\$0	\$1,554,397	\$421,061	\$108,174	\$108,174	\$86,851	\$86,288
UPR-200-W-3, -4, -65, -73	Rail Siding	\$0	\$3,917,791	\$992,820	\$2,273,499	\$2,273,499	\$451,812	\$449,818
UPR-200-W-39	Unplanned Release	\$0	\$1,622,392	\$489,056	\$415,278	\$415,278	\$168,530	\$167,966
UPR-200-W-43	Unplanned Release	\$0	\$1,554,397	\$421,061	\$121,337	\$121,337	\$86,851	\$86,288
UPR-200-W-51	Unplanned Release	\$0	\$2,763,873	\$704,455	\$654,597	\$654,597	\$242,481	\$241,082
UPR-200-W-56	Unplanned Release	\$0	\$1,622,392	\$489,056	\$161,391	\$161,391	\$168,530	\$167,966
UPR-200-W-57	Unplanned Release	\$0	\$1,577,890	\$444,555	\$131,301	\$131,301	\$122,093	\$121,529
UPR-200-W-61	Unplanned Release	\$0	\$1,627,027	\$493,691	\$572,404	\$572,404	\$180,118	\$179,554
UPR-200-W-63	Unplanned Release	\$0	\$1,554,397	\$421,061	\$407,418	\$407,418	\$86,851	\$86,288
UPR-200-W-67	Unplanned Release	\$0	\$1,554,397	\$421,061	\$113,957	\$113,957	\$86,851	\$86,288
UPR-200-W-70	Unplanned Release	\$0	\$1,577,890	\$444,555	\$136,837	\$136,837	\$122,093	\$121,529
UPR-200-W-71	Unplanned Release	\$0	\$2,686,822	\$704,390	\$943,510	\$943,510	\$348,206	\$346,807
UPR-200-W-96	Unplanned Release	\$0	\$1,575,403	\$442,067	\$381,580	\$381,580	\$109,795	\$109,231
UPR-600-12	Unplanned Release	\$0	\$1,622,392	\$489,056	\$180,797	\$180,797	\$168,530	\$167,966
UPR-600-21	Unplanned Release	\$0	\$1,554,397	\$421,061	\$100,888	\$100,888	\$86,851	\$86,288

CS/NFA = confirmatory sampling/no further action.

MESC/IC/MNA = maintain existing soil cover/intuitive controls/monitor natural attenuation

RTD = removal, treatment, and disposal.

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